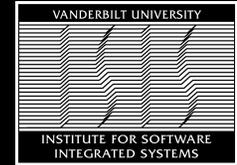




Institute for Software Integrated Systems

Vanderbilt University



The Cyber-Physical Systems Virtual Organization

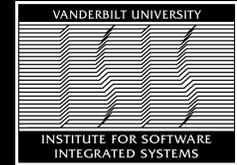
Publicity, Knowledge Sharing,
Collaboration, & Community
Networking Services for CPS
Researchers and Practitioners

NSF Reverse Site Visit

Nov 27th, 2012



Outline



- Mission Statement
- The VO Community Portal
- VO Groups
- User-Oriented Services



Objectives

- **Community Building**

- promoting **collaboration** and close interaction between **academia, industry & government**
- facilitating **interactions across technical disciplines & across applications areas**
- **cross-fertilization** of research in CPS **core sciences** and **applied research** in domain- and mission-oriented problems in a multi-agency setting

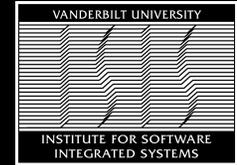
- **Collaboration Support via the website**

- **information flow** and awareness of CPS activities
- **collaboration** and professional networking
- **knowledge repository** to facilitate the open exchange of challenge problems, research results, tools, and educational materials

* Supporting CPS/NITRD community activities



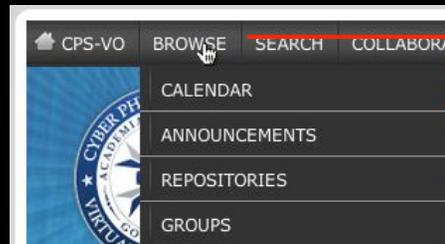
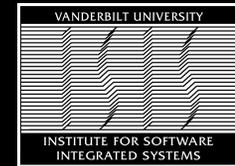
Outline



- Mission Statement
- The VO Community Portal
- VO Groups
- User-Oriented Services



The VO Community Portal



- Community Calendar
- Community Announcements
- Shared File Repository
- Taxonomic Search
- Special Interest Groups

CPS-VO NEWS BROWSE SEARCH COLLABORATE MY GROUPS Hello, Chris.vanBuskirk | My Account | Log out

Cyber Physical Systems Virtual Organization

Fostering collaboration amongst CPS professionals and industry

Welcome to the home page of the Cyber Physical Systems Virtual Organization

Join the CPS-VO

- PUBLICIZE EVENTS & MAKE ANNOUNCEMENTS
- SHARE DOCUMENTS & COLLABORATE
- FORM & MANAGE COMMUNITIES OF INTEREST
- ORGANIZE ONLINE MEETINGS

In the Spotlight

NSF Announces Updated CPS Solicitation
Cyber-physical systems (CPS) are engineered systems that are built from and depend upon the synergy... [more](#)

ARPA-E Open Funding Opportunity in Energy R&D
To address the challenges imposed by the rapidly evolving global energy market, ARPA-E seeks to... [more](#)

NSF Solicitation: Expeditions in Computing
The far-reaching impact and rate of innovation in the computing and information disciplines has... [more](#)

[More Announcements >>>](#)

Upcoming Events

09/16/12 - 09/21/12
Nano-Tera/Artist Summer School in Europe 2012 - September 16-21
OVERVIEW This year's edition of the Artist Summer School on Embedded Systems Design will be held in... [more](#)

10/07/12 - 10/12/12
Embedded Systems Week 2012
Embedded Systems Week is an exciting event which brings together conferences, tutorials, and... [more](#)

[More Events >>>](#)

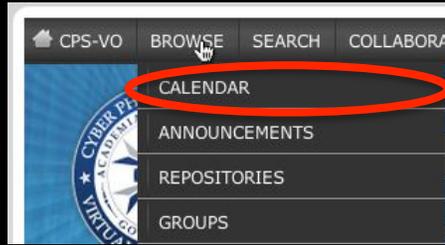
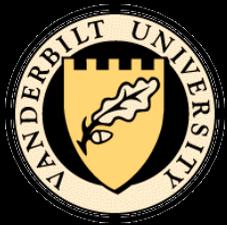
CPS Research Projects

- Embedded Fault Detection for Low-Cost, Safety-Critical Systems
- Collaborative Research: Smart Power Systems of the Future: Foundations for Understanding Volatility and Improving Operational Reliability
- A Real-Time Cognitive Operating System
- Dynamical-Network Evaluation and Design Tools for Strategic-to-Tactical Air Traffic Flow Management
- Hybrid Systems for Modeling and Teaching the Language of Surgery
- Collaborative Research: A CPS Approach to Robot Design
- Virtual Organization for Cyber-Physical Research (VO-CyPhER)
- Collaborative Research: CyberMech, a Novel Run-Time Substrate for Cyber-Mechanical Systems
- Programming Environment and Architecture for Situational Awareness and Response
- Autonomous Driving in Mixed-Traffic Urban Environments

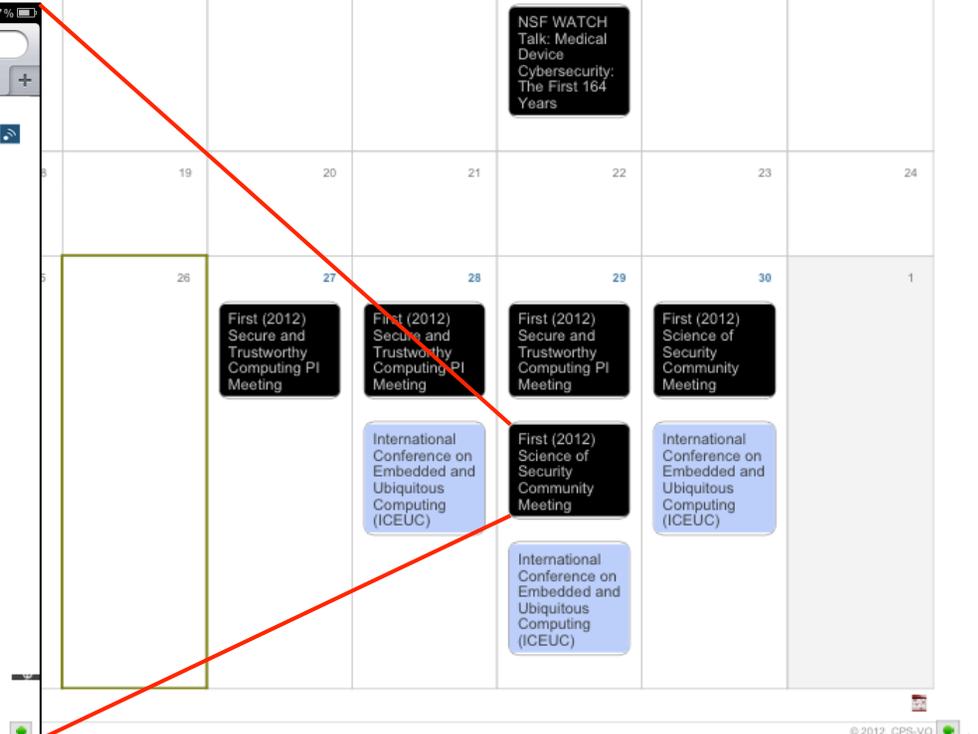
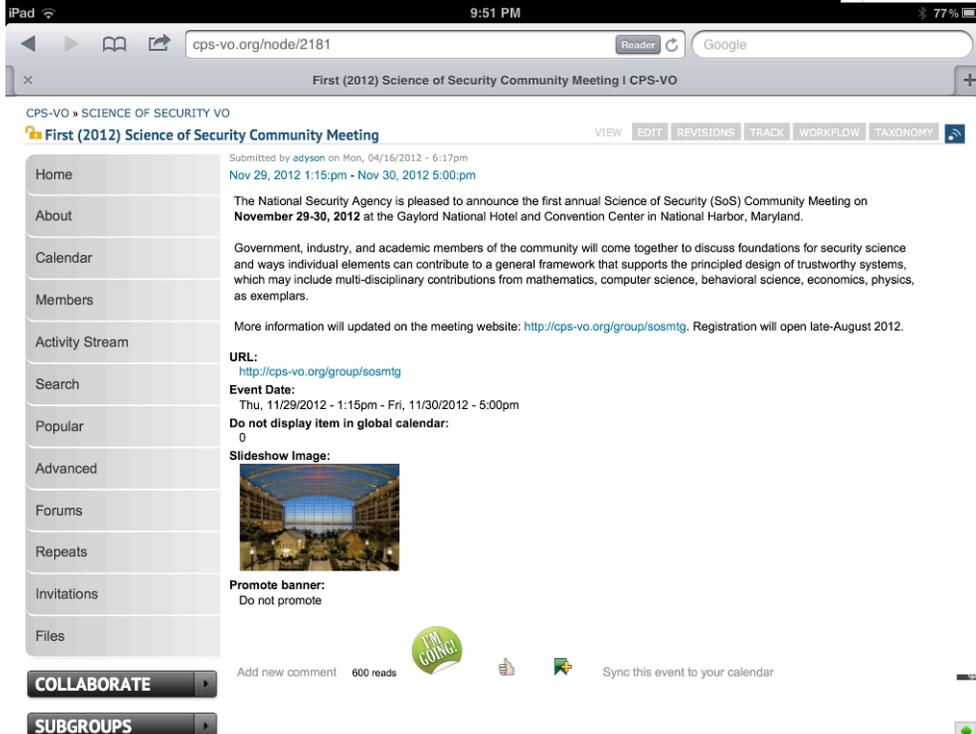
Recent News

Agency briefings about research interests
The ASEE Engineering Research Council hold a meeting in Washington DC on March 5, 2012. There were presentations from OSTP, ASD-R... [more](#)

Proceedings of the IEEE -- Special Issue on CPS
The January 2012 Special Issue of the Proceedings of the IEEE focuses on Cyber-Physical Systems. The issue includes 19 research... [more](#)



Browse The Community Calendar



iPad 9:21 PM 80%

cps-vo.org/node/2472

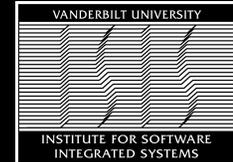
NSF Cybersecurity Funding Opportunity | CPS-VO

CPS-VO BROWSE SEARCH COLLABORATE MY GROUPS MY ACCOUNT

CALENDAR
ANNOUNCEMENTS
 REPOSITORIES
 GROUPS

Cyber Physical Systems Virtual Organization
 Fostering collaboration among CPS professionals in academia, government, and industry

Community Announcement Forums



CPS-VO » FORUMS » COMMUNITY CALLS » CALL FOR PROPOSALS

NSF Cybersecurity Funding Opportunity

Mon, 02/20/2012 - 10:36am

Mario Berges

Offline

Joined: Jun 26 2011

Email

Add professional contact

Cybersecurity Funding Opportunity

The US National Science Foundation's Federal Cyber Service (SFS) program has expanded funding for cybersecurity-related projects this year from \$15M to \$45M. We are actively seeking good proposals which address curriculum, faculty development and/or applied research in cybersecurity, information assurance, digital forensics and computer security.

The proposal submission deadline is April 17, 2012. For more information read about the Capacity Building Track at http://www.nsf.gov/funding/pgm_summ.jsp?pmis_id=5228 or contact Sue Fitzgerald (scfitzge@nsf.gov) or Guy-Alain Amoussou (gamoussou@nsf.gov).

Capacity Building Track: This track is open to all institutions of higher education. The intent is to increase the production of high quality information assurance and cybersecurity professionals by providing support for efforts within the higher education system, as well as outreach to K-12 students with related interests. These efforts may take many forms, but must be designed to address one or more of the following:

- increase national capacity for the high-quality education of information technology professionals in cybersecurity-related disciplines,
- increase the number of IT professionals in cybersecurity-related disciplines,
- increase interest in information assurance and/or cybersecurity careers,
- accelerate the integration of information assurance, computer security, or cybersecurity knowledge in curricula across the STEM disciplines,
- promote the integration of research and education in information assurance, computer security, or cybersecurity,
- strengthen partnerships between institutions of higher education, government, and relevant employment sectors leading to improved educational opportunities in cybersecurity-related studies, or
- increase the diversity of the cybersecurity workforce.

Capacity building projects may vary in size. A typical small scale project will request a total of \$200,000 to \$300,000 over a two to three year period. Large scale projects may not exceed a total of \$900,000 and typically will extend over three to four years.

Projects which address the following topics are of particular interest in this competition:

- development, deployment, and evaluation of information assurance, cybersecurity, and/or digital forensics curriculum guidelines leading to wide adoption nationally,
- integration of information assurance and/or cybersecurity topics into computer science, information technology, engineering and other existing degree programs with plans for pervasive adoption,
- development and extensive adoption of coordinated plans for

cps-vo.org/forum/1004

General Audience Forums | CPS-VO

Cyber Physical Systems Virtual Organization
 Fostering collaboration among CPS professionals in academia, government, and industry

CPS-VO » FORUMS

General Audience Forums

Forum	Topics	Posts	Last post
Community Calls			
Call for Proposals	10 1 new	10 1 new	CFP: ... by admin Nov 13 2012 - 12:55pm
Request for Information	5	5	ARPA-E RFI ... by Anonymous Feb 29 2012 - 5:26pm
Calls for Papers	32 1 new	32 1 new	ICCPs 2013: ... by hzhang_cse Oct 29 2012 - 11:51am
Calls for Workshops & Tutorials	5	5	CPSWeek ... by vkris.penn Jul 27 2012 - 1:57pm
Calls for Presentations	2	2	ICCPs - ... by oohipara Feb 14 2012 - 10:04am
Professional Development Clearinghouse for jobs, postdoc, etc. announcements.			
Position Announcements	5	5	Research ... by Katie Dey Dec 16 2011 - 9:48am

Forum Contains New Posts Forum Contains No New Posts Forum is Locked

iPad

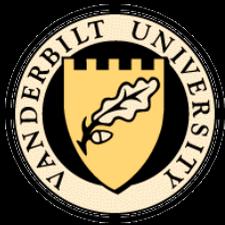
cps-vo.org/forum/2829

Cyber Physical Systems Virtual Organization
 Fostering collaboration among CPS professionals

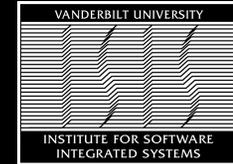
CPS-VO » FORUMS » GENERAL AUDIENCE FORUMS » COMMUNITY CALLS » CALL FOR PROPOSALS

Topic	Replies	Views	Created	Last reply
Sticky: NSF 2013 CPS Solicitation	0	519	by admin Aug 14 2012 - 3:26pm	n/a
CFP: Model-driven Approaches for Simulation Engineering new	0	45	by Anonymous Nov 13 2012 - 12:55pm	n/a
ARPA-E Open Funding Opportunity in Energy R&D	0	459	by Anonymous Mar 16 2012 - 9:20pm	n/a
NSF Solicitation: Expeditions in Computing	0	470	by Anonymous Feb 29 2012 - 4:21pm	n/a
High-Assurance Cyber Military Systems (HACMS)	0	172	by Katie Dey Feb 28 2012 - 4:54pm	n/a
Component, Context, and Manufacturing Model Library - 2 (C2M2L-2)	0	172	by Katie Dey Feb 28 2012 - 1:07pm	n/a
Power Efficiency Revolution for Embedded Computing Technologies (PERFECT)	0	115	by Katie Dey Feb 28 2012 - 12:22pm	n/a
NSF Announces Updated CPS Solicitation	0	671	by Anonymous Feb 27 2012 - 11:30am	n/a
NSF Cybersecurity Funding Opportunity	0	272	by marioberges Feb 20 2012 - 10:36am	n/a
NIST Announces 2012 Measurement Science & Engineering Research Grants Programs	0	205	by Katie Dey Jan 26 2012 - 11:03am	n/a

No New Posts Hot Thread (No New) Sticky Thread
 New Posts Hot Thread (New) Locked Thread



Vocabularies/Taxonomies Enable Search



- CPS Domains
 - Consumer
 - Communication
 - Defense
 - Energy
 - Critical Infrastructure
 - Health Care
 - Manufacturing
 - Robotics
 - Transportation
 - CPS Technologies
 - Architectures
 - Design Automation Tools
 - Embedded Software
 - Platforms
 - Systems Engineering
 - Wireless Sensing and Actuation
 - Education
 - Foundations
 - Architectures
 - Composition
 - Concurrency and Timing
 - Control
 - Modeling
 - Real-Time Coordination
 - Resilient Systems
 - Science of System Integration
 - Science of Security
 - Simulation
 - Validation and Verification
 - Science Policy
 - Research Program Overview

CPS-VO

Taxonomic Search

Keyword search

With all of the words

Search

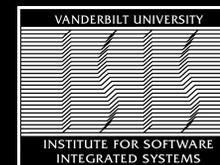
Guided search

Click a term to initiate a search.

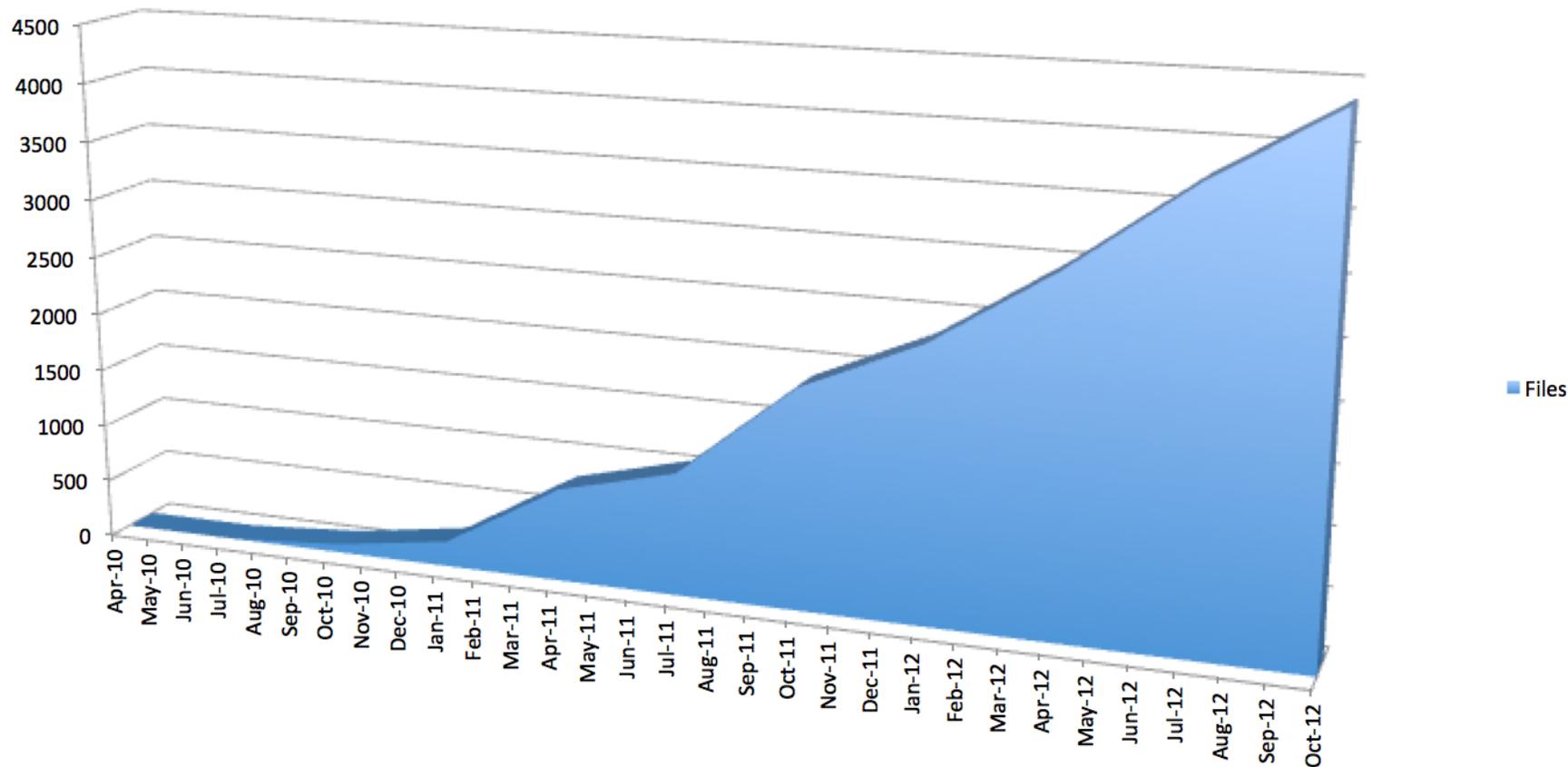
<p>Group</p> <p>HCSS Conferences (329) 2011 CPS PI Meeting (280) Computational Cybersecurity in Compromised Environments (C3E) (243) VO Moderators (227) Science of Security Virtual Organization (137) 2012 HCSS Conference Program Committee (122)</p> <p>Topics</p> <p>Foundations (399) CPS Domains (329) CPS Technologies (93)</p> <p>Contributor(s)</p> <p>A. Gray (1) A. Joshi (1) A. Prasad Sistla (2) A. Shelestov (2) A. Sherman (1) A. Sidorenko (2) A. Squicciarini (1) A.C. Jensen (1) A.J. Ramirez (1) Aaron Botello (1) Aaron Ridley (2)</p> <p>Keywords</p> <p>2- layer authentication (1) A/V (2) abstract interpretation (2) acceptability (1) Access Control (1) ACCESS Linnaeus Center (1) Ada Core Technologies (1) adaptive adversaries (1) adaptive manufacturing (1) Adaptive Vehicle Make (1) Adelphi (1)</p>	<p>DARPA AVN Meta-X (103) DARPA AVN Meta-X Private (102) 2011 HCSS Conference Program Committee (101) 2011 Automotive CPS Workshop (78) more...</p> <p>Research Program Overview (44) Education (39) Science Policy (34)</p> <p>Aaron Tomb (1) Adam Anderson (2) Adam J. Aviv (1) Adam Shostack (1) Adam Wick (2) Adel Sadek (3) Adrian Agogino (3) Ahmed AlEroud (1) Ajinkya Bhawe (1) more...</p> <p>adversary attack behavior (1) aerial (1) Aerospace (3) aerospace industry (1) AFOSR/RL (1) AFRL (1) Agilent Laboratories (1) Air Force Institute of Technology (1) Air Force Research Laboratory (1) more...</p>	<p>Event Types</p> <p>Workshop (54) Conference (52) PI Meeting (45) Satellite Workshop (17) Symposium (14) Community Forum (5)</p> <p>Date authored</p> <p>2010 (280) 2011 (837)</p> <p>Document Type</p> <p>Abstract (51) Agenda (21) Announcement (6) Call for Proposal (6) Congressional Testimony (5) Documentation (4) Draft (5) Executive Summary (4)</p> <p>Document Source</p> <p>Academia (598) Industry (182) U.S. Government (40) Research Organization (19) Professional Organization (13) NSA (10)</p> <p>Content type</p> <p>Event (463) File (1965) Forum topic (143) Page (250)</p>	<p>Summer School (5) Breakout Session (1) Panel (1) Session (1) more...</p> <p>2012 (2985)</p> <p>Memo (3) Minutes (9) Model (2) Poster (118) Presentation (463) Press release (2) Publications (140) more...</p> <p>NSF (8) DARPA (5) United Kingdom (4) Canada (3) more...</p> <p>Story (6) User Profile (1220) Video (14) Webform (41)</p>
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Repository Growth Trends

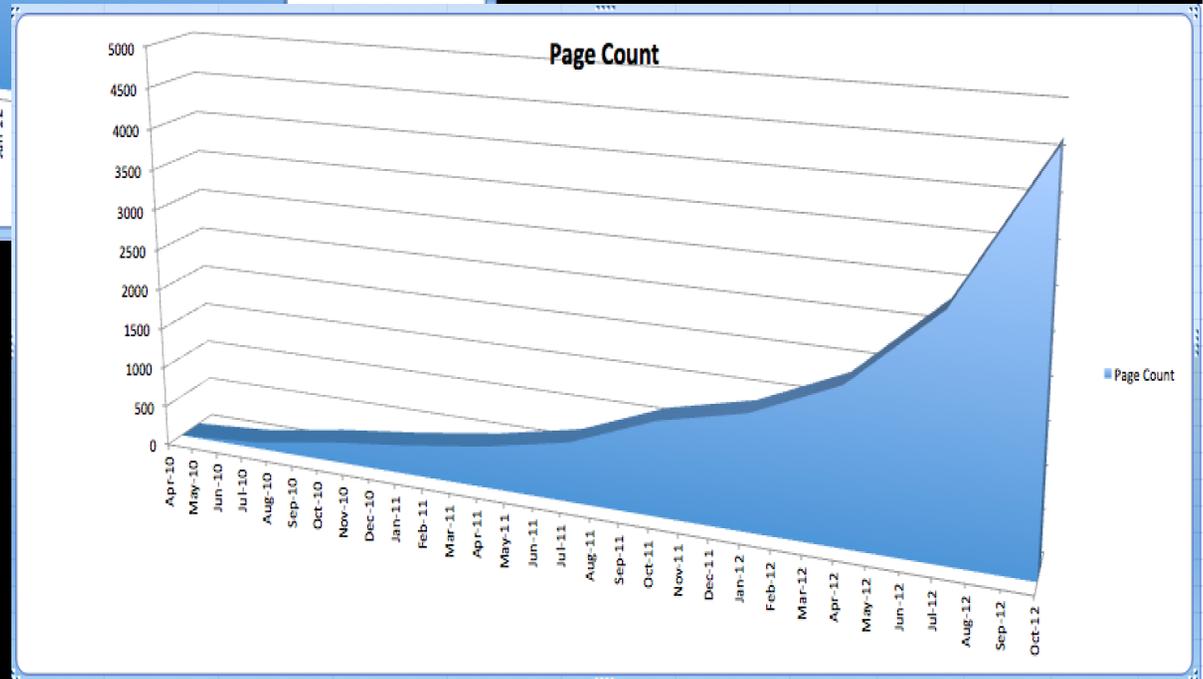
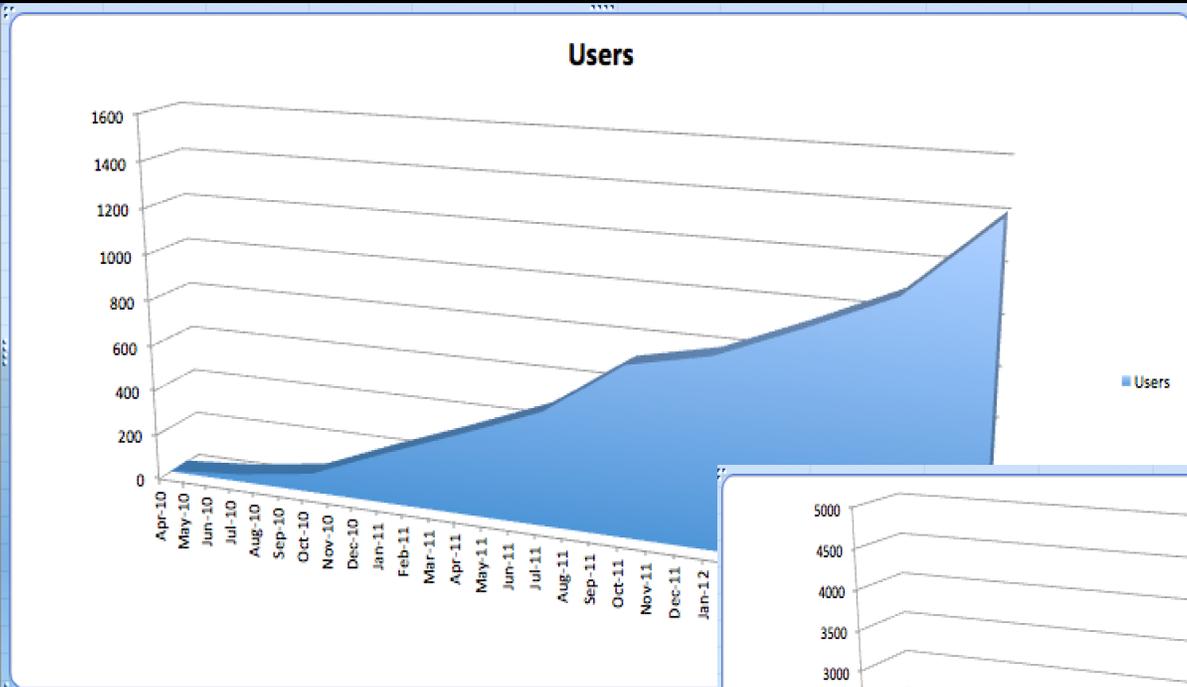
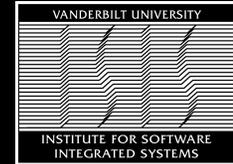


Files





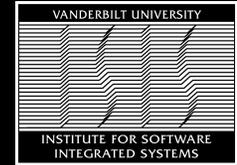
General Growth Curves



* 2,047 Users on Nov-26



The VO - Building a Collaboration Framework



The CPS-VO Portal
is not just a "web site"

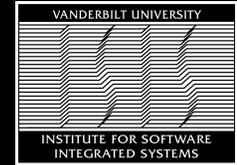
Differentiators

- *Community*-oriented framework
- Rich set of services
- Meta-Data
- Taxonomic Search Engine
- Cohesive collection of loosely coupled web-sites

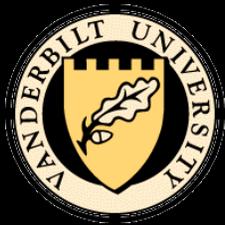
(*a.k.a. Groups*)



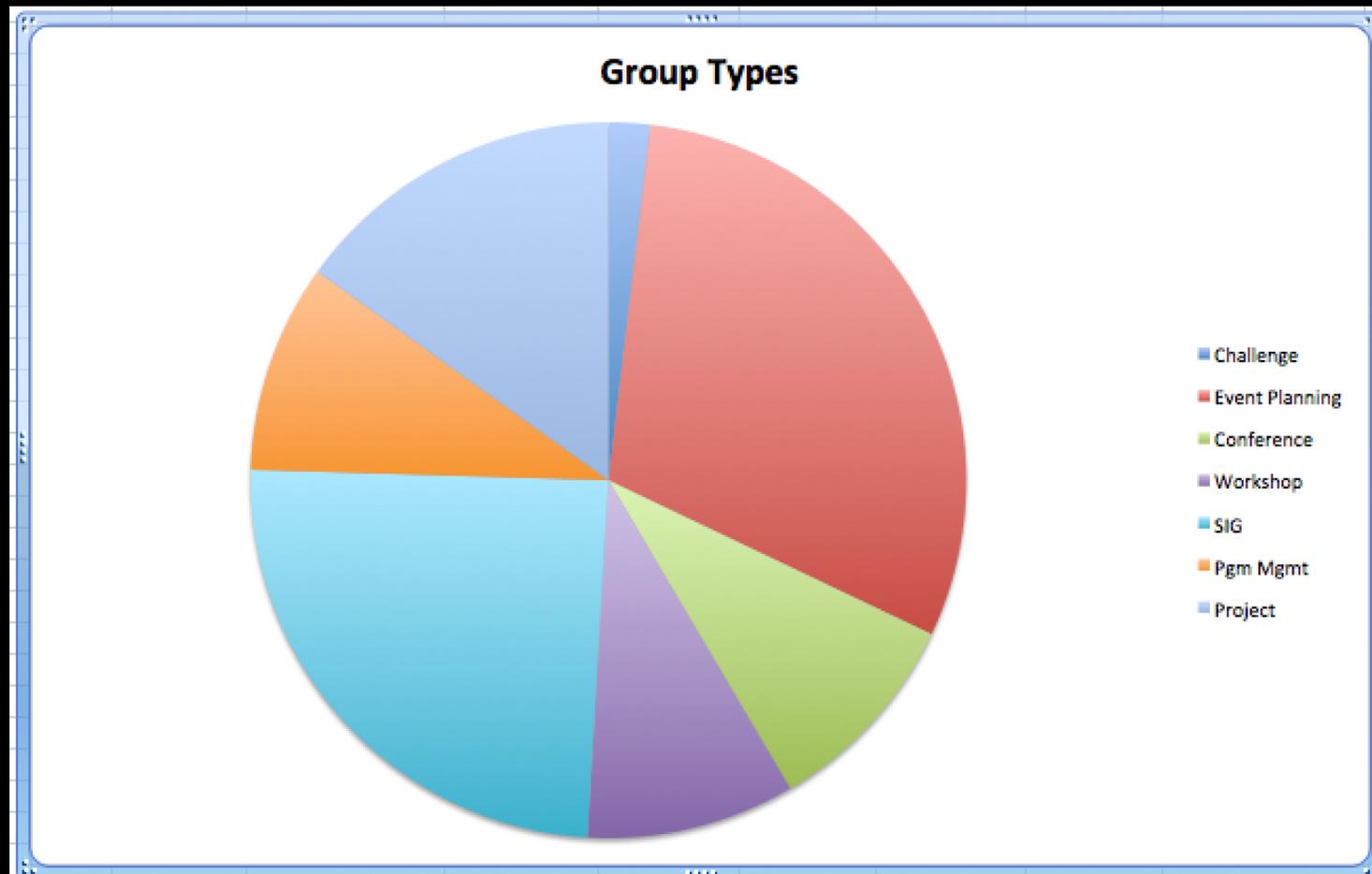
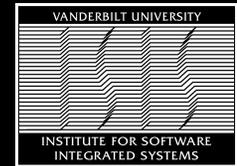
Outline



- Mission Statement
- The VO Community Portal
- VO Groups
- User-Oriented Services



Common Types of Groups



Challenge	Event Planning	Conference	Workshop	SIG	Pgm Mgmt	Project	Tech Transition	Education
		18.18%			23.64%			
1.82%	29.09%	9.09%	9.09%	23.64%	9.09%	14.55%	1.82%	1.82%

Example Event Planning

2012 The New Clockwork for Time-Critical Systems Planning Meeting Program Committee

CPS-VO » 2012 NATIONAL WORKSHOP ON THE NEW CLOCKWORK FOR TIME-CRITICAL SYSTEMS » 2012 THE NEW CLOCKWORK FOR TIME-CRITICAL SYSTEMS PLANNING MEETING PROGRAM COMMITTEE

2012 The New Clockwork for Time-Critical Systems Planning Meeting Program Committee

[EDIT GROUP](#) [REVISIONS](#) [TRACK](#) [CLONE](#) [TAXONOMY](#) [BROADCAST](#) [PANELS](#) [DEVELOP](#)

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- Create Group
- Create News Item
- Create Online Meeting
- Create Video
- Create Webform
- Create Wiki Page
- Create Web Page

SUBGROUPS

- 2012 National Workshop on the New Clockwork for Time-Critical Systems
 - 2012 The New Clockwork for Time-Critical Systems Planning Meeting Program Committee
 - 2012 The New Clockwork for Time-Critical Systems Planning Meeting

Welcome



A cyber-physical system consists of two interacting subsystems, a cyber-system and a physical system. The behavior of the cyber system is controlled by the execution of programs on a distributed digital computer system, while the laws of physics control the behavior of the physical system. The different models of time—dense physical time in the physical system versus discrete execution time in the cyber system, and the impossibility of perfect synchronization of the physical clocks of the nodes of a distributed computer system, lead to interesting phenomena concerning the joint behavior of these two subsystems. The colloquium is intended to shed light on these phenomena by renowned scientists who have worked on this topic from different perspectives.

This is a non-public group.

Two Meetings:

1. The **Planning Meeting**: [The New Clockwork for Time-Critical Systems Planning Meeting](#) was held on Monday, June 11 and half of Tuesday, June 12 at Dayton just before 5:00 for ~25 people.
2. The **Workshop**: [The National Workshop on the New Clockwork for Time-Critical Systems](#)

Resources:

[List of Invitees](#) for the Baltimore New Clockwork for Time-Critical Systems Workshop

[List of registrations](#) for the Baltimore New Clockwork for Time-Critical Systems Workshop

- [Overview from the time workshop MS Word file that was in italics](#)
- [The non-italic portion is on the Workshop page](#)

Forum topics:

Recent Minutes

- [April 18, 2012](#)
- [April 4, 2012](#)
- [February 29, 2012](#)
- [February 22, 2012](#)
- [February 8, 2012](#)
- [Candidates for Invitees](#)
- [General Discussion](#)

Planning Telecons

A Permanent Conference Web Presence



HCSS Conferences

CPS-VO » GROUPS » HCSS CONFERENCES »

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Search



2012 High Confidence Software and Systems Conference

A world class community of researchers will gather in Annapolis, MD for a full week of High Confidence Software and Systems Conference activities that are structured to focus on new scientific and technological foundations that can enable entirely new generations of engineered designs that are becoming essential for effectively operating life-, safety-, security-, and mission-critical systems.

May 6-11, 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
6	7	8	9	10	11
SCC Meeting	SCC Meeting	HCSS Conference Theme: Technology Transfer	HCSS Conference Theme: Formal Synthesis	HCSS Conference Theme: Compositional Reasoning	Designed-In Security Workshop

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- > Create Wiki page
- > Create Group
- > 21 members
- Manager: > KNEW
- > My membership
- > Invite members

Subgroups

- HCSS Conferences
 - [2011 HCSS Conference Program Committee](#)
 - [2012 HCSS Conference Program Committee](#)

[+] Feedback

Conference Archives: [2001](#), [2002](#), [2003](#), [2004](#), [2005](#), [2006](#), [2007](#), [2008](#), [2009](#), [2010](#), [2011](#), [2012](#)

Example SIG

CPS-VO MY GROUPS MY ACCOUNT Hello, Chris.vanBuskirk | Log out ? Search



Science of Security Virtual Organization

CPS-VO » SCIENCE OF SECURITY VIRTUAL ORGANIZATION

Science of Security Virtual Organization EDIT GROUP TRACK TAXONOMY BROADCAST PANELS

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SUBGROUPS

MEMBER INFO

In the Spotlight

First (2012) Science of Security

The National Security Agency is pleased to announce the first annual Science of Security (SoS) Community Meeting on **November 29-30, 2012** at the



First (2012) Science of Security Community Meeting

SoS Background Material

Recommendations for Science of Security core background reading

- DHS Roadmap for Cybersecurity Research
- Blueprint for a Science of Cybersecurity, Fred B. Schneider
- The Next Wave: Developing a Blueprint for a Science of Cybersecurity Spring 2012
- The Sciences of the Artificial excerpt (2nd Ed. 1981, pp 129-159), Herbert A. Simon
- "Measuring Security", IEEE Security & Privacy, May/June 2011, Stolfo, Bellovin, Evans
- Schneider on Security, Fred B. Schneider
- Science of Cyber-Security, JASON report, 2010
- The Science of Security, Security & Privacy May/June 2011
- Strong Inference, John R. Platt

Current Research

- NSA SoS Lablets
- NSF TRUST Center
- AFOSR SoS MURI
- AFSOR Trust & Suspicion BRI

Related Research

- AFOSR Foundations of Information Systems
- ARL Computing Sciences
- DHS Cyber Security R&D Center
- HCSS Conferences
- IARPA TRUST Program
- NIST NICE Program
- NSF Secure and Trustworthy Cyberspace (SaTC)
- ONR Software and Computing Systems Program

Upcoming Events

11/27/12 - 11/29/12
First (2012) Secure and Trustworthy Computing PI Meeting

11/29/12 - 11/30/12
First (2012) Science of Security Community Meeting

+ Add event

SUBGROUPS

- Science of Security VO
 - <Private>
 - <Private>
 - <Private>
 - Moving Target Research Symposium
 - <Private>
 - 2012 SoS Community Meeting
 - <Private>
 - <Private>
 - <Private>
 - <Private>

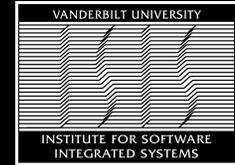
Example Tech Transition

The screenshot displays a web application interface for the DARPA META Program. At the top, there is a navigation bar with 'CPS-VO' and 'MY GROUPS' on the left, and a login section with 'username', 'password', and 'Log In' buttons on the right. A search bar is also present. Below the navigation bar, a banner features a person looking at a computer monitor, with the text 'DARPA META Program' and a 'DARPA' logo. A registration prompt reads: 'Not a member? Click here to register! Forgot username or password?'. The main content area shows a breadcrumb trail: 'CPS-VO » DARPA AVM PROGRAM » DARPA META PROGRAM » FILES'. Below this, a 'Files' section contains a table of files and folders. On the left side of the interface, there are three buttons: 'COLLABORATE', 'SUBGROUPS', and 'MEMBER INFO'. The file list table includes columns for file names, sizes, and download links.

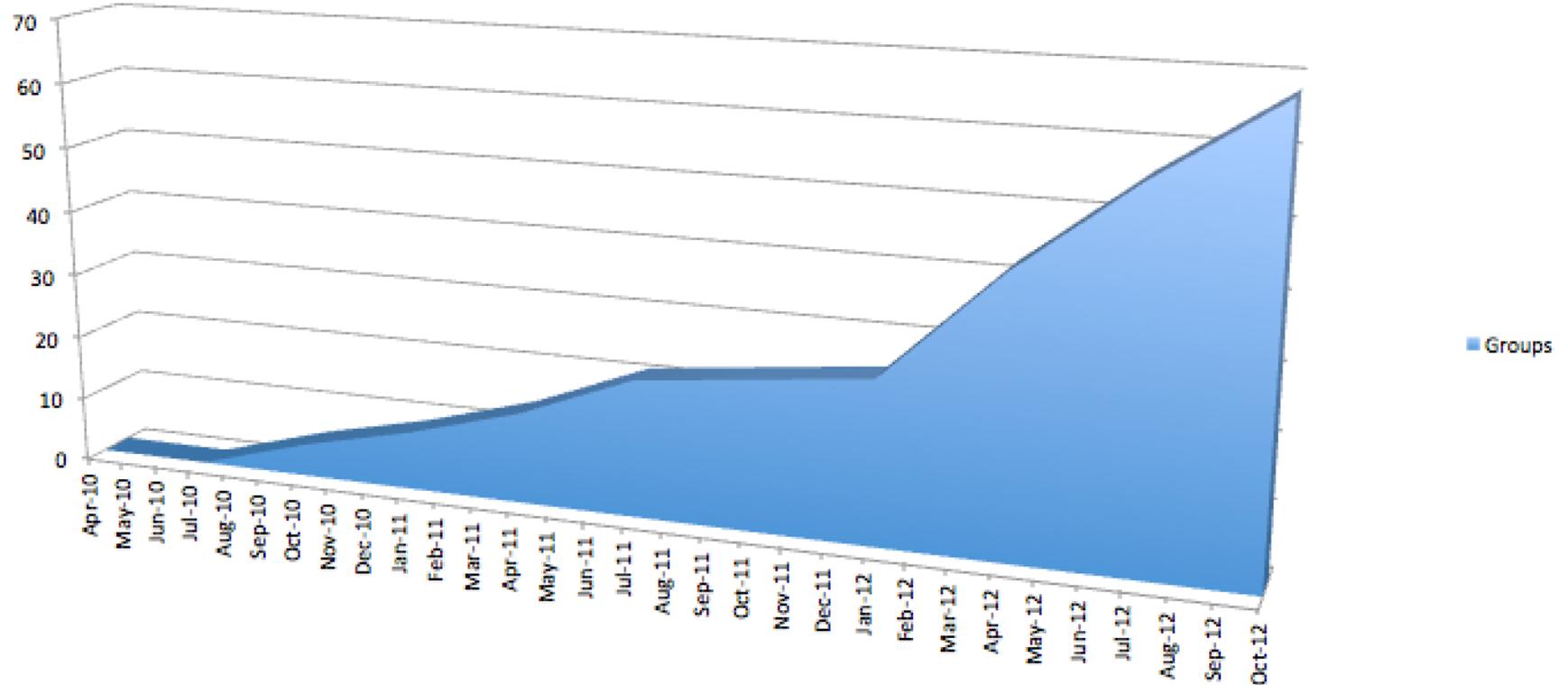
File Name	Size	Download Link
▼ META: Deliverables by Technical Area	5620.99 MB	72
TA1 Complexity Metric	1041.86 MB	12
TA2 Adaptability Metric	1054.88 MB	13
TA3 Metalanguage	1089.33 MB	16
TA4 Design Flow	1363.18 MB	12
TA5 Verification Flow	1071.74 MB	19
BAE META Software Narrative.pdf	135.11 KB	[download file]
CyPhy2HybridSAL.zip	1.29 MB	[download file]
CyPhyHILITEv2.zip	4.45 MB	[download file]
hsaRelAbsV4.zip	6.92 MB	[download file]
meta.zip	952.68 MB	[download file]
META_VDD_Final.docx	187.56 KB	[download file]
NetworkFaultPerformanceAnalysis20110719.zip	350.77 KB	[download file]
PARC META Final Report.pdf	1.05 MB	[download file]
PARC META Software Narrative.pdf	53.89 KB	[download file]
ParcMeta2Upload.zip	5.9 MB	[download file]
PARC_Meta2_Software_Upload_May_11_PI_Meeting.zip	26.85 MB	[download file]
prismatic-r1159-20110930.zip	56.67 MB	[download file]
PROMISE-Editor-deliverable-20111014.zip	7.11 MB	[download file]
PROMISE-Network.zip	648.96 KB	[download file]
README_META_DELIVERY.txt	163 bytes	[download file]
SIFT META Final Report.pdf	2.12 MB	[download file]
SIFT META Software Narrative.pdf	40.94 KB	[download file]
SRI META Final Report.pdf	5.24 MB	[download file]
SRI META Software Narrative.pdf	64.32 KB	[download file]
▶ META: Deliverables by Performer	1638.15 MB	47



Groups are Taking Off

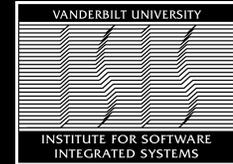


Groups

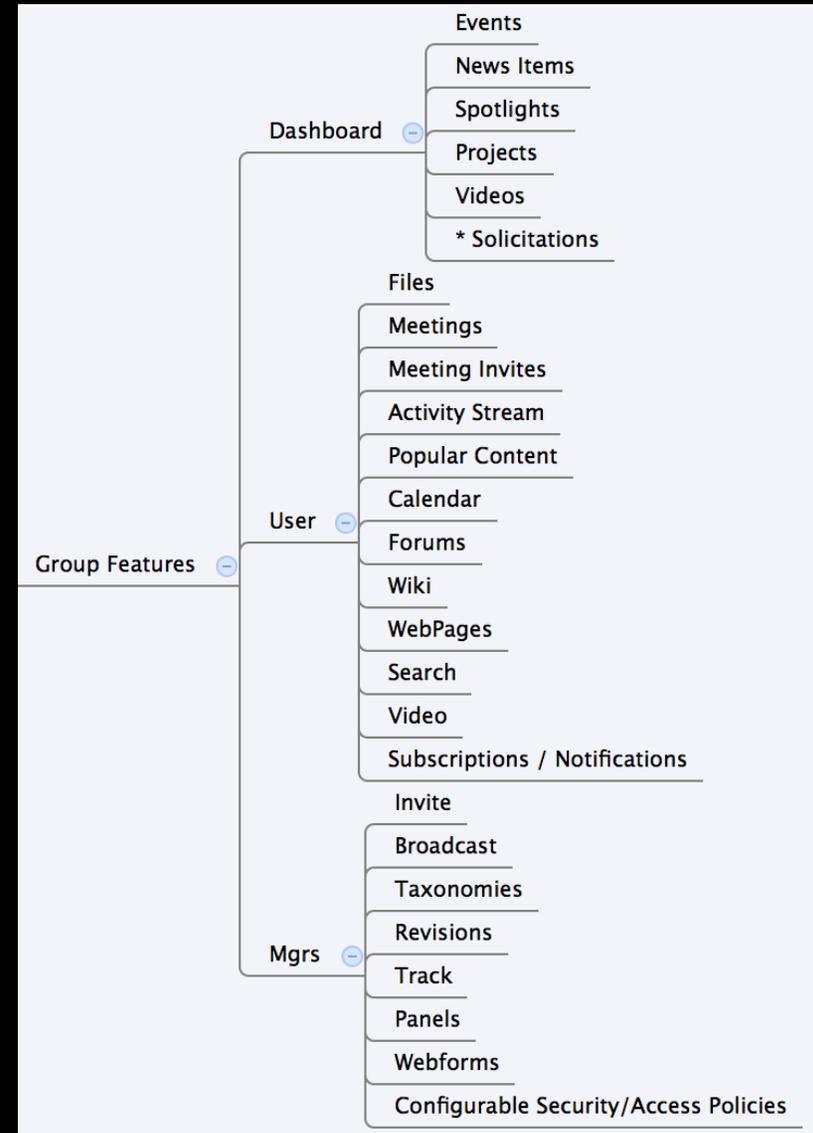




VO 'Group' Services



- Branding with Configurable **Dashboard**
- Configurable **Security** Policy
- Discussion **Forums**
- **Wiki**
- **Email** Announcements
- A Virtual **Filesystem**
- **Revision** Control
(incl. diff-s)
- Domain-Specific **Search** Engine
- **Calendar** Mgmt
(incl. Desktop Sharing Meetings)
- Content **Subscriptions/Notifications** Service
- ...





Configurable Dashboards

iPad 11:18 PM

cps-vo.org/node/488/og_panels

Science of Security VO | CPS-VO

CPS-VO » SCIENCE OF SECURITY VO » PANELS

EDIT GROUP TRACK TAXONOMY BROADCAST

List Add new page

Create custom pages for your group. Use custom pages to organize your content in a pretty and informative manner. Your group can group a whole website within a web site. Each custom page becomes a tab when viewing your group. One of your custom pages should be designated as your group home page. That page will then display when visitors first arrive at your group.

Start by clicking the **Add new page** tab. Then you will choose a custom layout for your page. Then you will want to edit content for your custom page.

Home page	Title	Weight	Operations
<input checked="" type="checkbox"/>	Home	-10	Edit content Change layout Edit page Delete page
<input type="checkbox"/>	About	-9	Edit content Change layout Edit page Delete page
<input type="checkbox"/>	Calendar	-8	Edit content Change layout Edit page Delete page
<input type="checkbox"/>	Members	-7	Edit content Change layout Edit page Delete page
<input type="checkbox"/>	Activity Stream	-6	Edit content Change layout Edit page Delete page
<input type="checkbox"/>	Search	-5	Edit content Change layout Edit page Delete page
<input type="checkbox"/>	Popular	-3	Edit content Change layout Edit page Delete page
<input type="checkbox"/>	Advanced	-2	Edit content Change layout Edit page Delete page

Save settings Reset Homepage

- COLLABORATE
- SUBGROUPS
- MEMBER INFO

Display settings

Left side

- Spotlight (group)
 - No title
 - Cumulus Tag Cloud
 - Cumulus Tag Cloud

Right side

- Recent News (group)
 - Organic groups: Groups:
 - Upcoming Events (group)
 - No title
 - Custom
 - No info
 - SoS Homepage Research
 - SoS Homepage Research
 - Funding Opportunities
 - Funding Opportunities (homepage Block)
 - Education
 - Education
 - Custom: Current Research
 - Current Research *status: hidden*
 - Custom: Related Research
 - Related Research *status: hidden*

3

iPad 10:13 PM 74%

cps-vo.org/group/SoS

Science of Security VO | CPS-VO

CPS-VO MY GROUPS MY ACCOUNT Log out



CPS-VO » SCIENCE OF SECURITY VO

EDIT GROUP TRACK TAXONOMY BROADCAST PANELS

Home In the Spotlight

About

Calendar

Members

Activity Stream

Search

Popular

Advanced

Forums

Files

COLLABORATE

SUBGROUPS

MEMBER INFO

SaTC Cyber Café

Review the results from the first SaTC ONLINE Cyber Café, designed to identify critical...

Recent News

Request for Comments (RFC)-Federal Cybersecurity Research and Development Strategic Plan This Request For Comments (RFC) is issued by the Cyber Security and... more

National Research Council Study of Cybersecurity Science An ad hoc National Research Council committee will consider future... more

UCL Cyber Security Research Institute Established UCL Cyber Security Research Institute is the UK's first academic... more

Popular Topics

2008 NSF-IARPA SoS Workshop 2011 HCSS Conference AFOSR: Information, Operations, and Security Program Review (Oct '12) Authentication Composition Cybersecurity Cyberspace Policy Review Encryption Infrastructure JASON 2010 Summer Study Label Quarterly Meeting, Apr '12 Label Quarterly Meeting, Jan '12 Measuring Security Network Monitoring NSA SoS Labels Roadmap Science of Security SoS Background Material SoS Courses SoS Kick-Off Meeting (Oct'11) Vanderbilt

Upcoming Events

11/27/12 - 11/29/12 First (2012) Secure and Trustworthy Computing PI Meeting

11/29/12 - 11/30/12 First (2012) Science of Security Community Meeting

12/03/12 - 12/07/12 2012 Annual Computer Security Applications Conference

01/08/13 - 01/10/13 8th Cyber Security and Information Intelligence Research Workshop (CSIIRW)

02/18/13 - 02/20/13 Third ACM Conference on Data and Application Security and Privacy (CODASPY 2013)

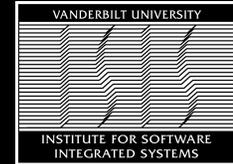
Current Research

NSA SoS Labels NSA SoS Projects AFOSR SoS MURI AFOSR Trust & Suspicion BRI NSF TRUST Center

Funding Opportunities



Access Control Policies



iPad 10:19 PM 73%

cps-vo.org/node/488/edit

Science of Security VO | CPS-VO

Private group

List in groups directory

MEMBERSHIP REQUESTS: *

- Open - membership requests are accepted immediately.
- Moderated - membership requests must be approved.
- Invite only - membership must be created by an administrator.
- Closed - membership is exclusively managed by an administrator.

Registration form

Parent

Notifications

Group Branding

PARENT: <No parent group>

2012 Computational Cybersecurity in Compromised Environments (C3E) | CPS-VO

cps-vo.org/node/3453/browser

ACM Comput...ion System Me.Finance Appraisals Me WRUW PB PB2 Work Work.BizOp Work.ESCHER

Content management Site building Organic groups Site configuration CPS-VO Admin Messaging & Notifications User management Reports Advanced help Example help Help 21

CPS-VO MY GROUPS MY ACCOUNT 36 1 Log out Search

C3E SCORE
SPECIAL CYBER OPERATIONS RESEARCH AND ENGINEERING

2012 Computational Cybersecurity in Compromised Environments (C3E)

CPS-VO » 2012 COMPUTATIONAL CYBERSECURITY IN COMPROMISED ENVIRONMENTS (C3E) » FILES

Files EDIT GROUP TRACK CLONE TAXONOMY BROADCAST PANELS DEVEL

Home	C3E	267.48 MB	187
Program	C3E 2009 Workshop	32.53 MB	29
Registration	2009 Slides	0 bytes	0
Venue	C3E 2009 Bibliography Artifacts	32.53 MB	29
	2009 Cyber Threats and Trends	2.33 MB	[download file]
	A Bibliography on Network Analytics	249.64 KB	[download file]
	A Language of Life: Characterizing People using...	279.34 KB	[download file]

Create folder
Select a folder to create a new subfolder.

Create Folder:

Create

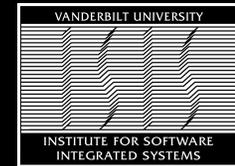
File upload
Select a folder to upload files to.

Upload files

Feedback



Discussion Forums



Fri, 03/23/2012 - 9:01am #17

[sushilkbirla](#)



Offline



Joined: Aug 5 2010

[Email](#)

[Add friend](#)

[Add coworker](#)

[Add collaborator](#)

Taxonomy for "Assurance Cases"

Some suggestions for additional terms in the taxonomy

Loss (a generalization of "harm")

Safety (e.g. freedom from harm)

Safety goal (a safety case should demonstrate that this is satisfied)

Hazard (potential for loss)

Hazard identification (aka hazard recognition)

Sushil Birla

[Delete](#) [Edit](#) [Reply](#)

Fri, 03/23/2012 - 2:45pm #18

[Chris.vanBuskirk](#)



Online



Joined: Jun 15 2010

Hi guys. I added myself to

Hi guys. I added myself to your group, so I could quickly prototype the discussion so far. *(hope you don't mind)*

Assurance Case Research Group

Home Members Calendar Forums Files

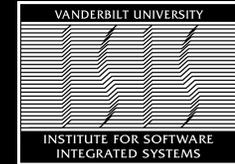
CPS-VO » GROUPS » ASSURANCE CASE RESEARCH GROUP »

Files	EDIT	TAXONOMY	BROADCAST	PAGES
ACRG: Topics		0 bytes		0
Develop		0 bytes		0
Evaluate		0 bytes		0
ACRG: Keywords		0 bytes		0
hazard		0 bytes		0
hazard identification		0 bytes		0
loss		0 bytes		0
safety		0 bytes		0
safety goal		0 bytes		0

[Delete](#) [Edit](#) [Reply](#)



Group Wikis



- To create a link to another wiki page, simply use the MediaWiki syntax, which looks like `[[Title]]` or `[[Title|Text to render]]`
- If the target page does not yet exist, the user will be allowed to create it, after clicking on the link.

A screenshot of a MediaWiki group page. The page title is "United States" and it is part of the "Science of Security" group. The page content includes a description of the United States, a "Backlinks" section with a link to "SoS Wiki", and a "Groups" section showing the "Science of Security" group. The page has a blue header with a circuit board background and a search bar.

Document Repositories

Science of Security

[Home](#) [Sponsors](#) [Calendar](#) [Events](#) [Search](#) [Recent Posts](#) [Popular](#) [Members](#) [Mod Board](#) [Help](#) [Forum](#) [Files](#)

CPS-VO » GROUPS » SCIENCE OF SECURITY »

Files

[REVISIONS](#) [TAXONOMY](#) [BROADCAST](#) [PAGES](#)

 SoS: Topics	170.95 MB	95
 Core Background Material	0 bytes	0
 JASON 2010 Summer Study	11.49 MB	4
 Roadmap	2.64 MB	1
 Agenda	130.45 KB	2
 Authentication	824.76 KB	2
 Composition	22.22 KB	1
 Cybersecurity	23.06 MB	14
 Cyberspace Policy Review	780.5 KB	2
 Encryption	570.53 KB	1
 Infrastructure	710.5 KB	1
 Measuring Security	7.43 MB	5
  Is Finding Security Holes a Good Idea?	109.69 KB	[details]
  Measuring Cyber Security and Information Assurance: A State of the Art...	4.47 MB	[details]
  Measuring Security	15.31 KB	[details]
  NSA SVP Hard Problem Overview	192.04 KB	[details]
  Report on Measuring Security Workshop	2.65 MB	[details]
 Network Monitoring	391.42 KB	1
 Science of Security	122.99 MB	61
 SoS: Contributor(s)	134.16 MB	47
 Alessandro Acquisti	124.12 KB	1
 Alfred Hero	391.42 KB	1

Create Folder:

File upload

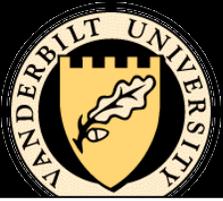
[Add File](#)

Audience:

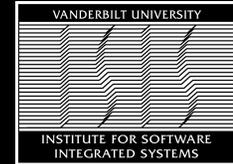
- 2011 Automotive CPS Workshop
- 2011 HCSS Conference Program Committee
- 2012 CPS Medical Devices Workshop
- 2012 CPS Time-Critical Systems Workshop
- 2012 HCSS Conference Program Committee

Group toolbar

- [Create File](#)
- [Create Forum topic](#)
- [Create Event](#)
- [Create Online Meeting](#)



Revision Control



Revisions for Test 2 VIEW EDIT REVISIONS TRACK WORKFLOW CLONE TAXONOMY DEVEL

List revisions

Files

The revisions let you track differences between multiple versions of a post.

COLLABORATE

- Create Event
- Upload File
- Create Forum Topic
- Create Group
- Create News Item
- Create Online Meeting
- Create Project
- Create Video
- Create Webform
- Create Wiki Page
- Create Web Page

SUBGROUPS

MEMBER INFO

Revision	Show diff	Operations
Nov 23 2012 - 11:34pm by Katie Dey	<input type="radio"/>	<input checked="" type="radio"/> current revision
Nov 23 2012 - 8:38pm by Katie Dey	<input type="radio"/>	<input type="radio"/> revert <input type="radio"/> delete
Nov 2 2012 - 3:01pm by Anonymous	<input checked="" type="radio"/>	<input type="radio"/> revert <input type="radio"/> delete
Nov 2 2012 - 3:01pm by Anonymous	<input type="radio"/>	<input type="radio"/> revert <input type="radio"/> delete
May 24 2012 - 3:01pm by admin	<input type="radio"/>	<input type="radio"/> revert <input type="radio"/> delete

```

<h2>Sponsors</h2>
</em></p>
+ <p><em>Government Research Sponsors</em></p>
<ul>
<li><a class="ext" href="http://www.wpafb.af.mil/afosl/"
search (AFOSR)
+ target="_blank">Air Force Office of Scientific Research (AFOSR)
</a></li>
/index.shtm
curity (DHS)
+ <li><a class="ext" href="http://www.nsa.gov/research/index.shtml"
target="_blank">National Security Agency (NSA)</a></li>
">
+ <li><a class="ext" href="http://www.nsf.gov/"
">
+ <a>&nbsp;</b>
target="_blank">National Science Foundation (NSF)</a></li>
- <li><b><a class="ext" href="http://www.nsf.gov/"
target="_blank">National Science Foundation (NSF)</a></b></li>
+ <li><a class="ext" href="http://www.dhs.gov/index.shtm"
target="_blank">Department of Homeland Security (DHS)</a>
</li>
</ul>
  
```

Revision of Mon, 10/15/2012 - 3:38pm:

SoS Vision and Goals

Vision and Goals

The President's 2011 research plan for a trustworthy cyberspace identified a priority need for research to develop a "science of security" that would provide first principles and the fundamental building blocks for security and trustworthiness. It further recognized that the multi-dimensional nature of the problem would require contributions from biology, economics and other social and behavioral sciences in addition to the traditional disciplines of mathematics, computer science, and electrical engineering. Numerous activities have been initiated across government, academia, and industry to advance the development of such a science. This Science of Security Virtual Organization was established by the National Science Foundation to provide a focal point for security science related work and to facilitate the creation of a collaborative community to advance security science.

While certain subfields of security have a strong scientific basis (e.g., cryptography, formal methods), there is no comprehensive scientific basis for constructing systems that are trustworthy by design. This lack of a disciplined and rigorous scientific basis profoundly limits our ability to design, deploy, and trust most large-scale and cyber-physical systems (CPS). A foundational science of security is needed now. To this end, the Science of Security Group will provide a virtual organization for community awareness, collaboration, and information all directed toward the maturing of the scientific basis for security.

Domain-Specific Search Engines

Science of Security

[Home](#) [Sponsors](#) [Calendar](#) [Events](#) [Search](#) [Recent Posts](#) [Popular](#) [Members](#) [Mod Board](#) [Help](#) [Forums](#) [Files](#)

CPS-VO » GROUPS » SCIENCE OF SECURITY »

Search REVISIONS TAXONOMY BROADCAST PAGES

Guided search
Click a term to initiate a search.

SoS: Topics

- [JASON 2010 Summer Study](#) (4)
- [Roadmap](#) (1)
- [Agenda](#) (2)
- [Authentication](#) (2)
- [Composition](#) (1)
- [Cybersecurity](#) (14)
- [Cyberspace Policy Review](#) (2)
- [Encryption](#) (1)
- [Infrastructure](#) (2)
- [Measuring Security](#) (5)
- [Network Monitoring](#) (1)
- [Science of Security](#) (70)

Contributor(s)

- [A. Gray](#) (1)
- [A. Prasad Sistla](#) (1)
- [A.C. Jensen](#) (1)
- [A.J. Ramirez](#) (1)
- [Aaron Ridley](#) (2)
- [Aaron Tomb](#) (1)
- [Adam Anderson](#) (2)
- [Adam Wick \(Galois\)](#) (1)

Tags in SoS: Contributor(s)

[Alessandro Acquisti](#) [John Mitchell \(Stanford\)](#) [Kaliappa Ravindran \(The City University of New York\)](#) [Melissa Hathaway](#) [Michael Lesk](#) [Michelle Crawford \(Alabama State University\)](#) [Roy A. Maxion \(CMU\)](#) [Saurabh Amin \(UC Berkeley\)](#) [Shankar Sastry \(UC Berkeley\)](#) [Stephanie Forrest \(UNM and Santa Fe Institute\)](#) [Sujata Millick \(HP Labs\)](#) [Vicraj Thomas](#) [more tags](#)

Tags in SoS: Topics

[Agenda](#) [Authentication](#) [Composition](#) [Cybersecurity](#) [Cyberspace Policy Review](#) [Encryption](#) [Infrastructure](#) [JASON 2010 Summer Study](#) [Measuring Security](#) [Network Monitoring](#) [Roadmap](#) [Science of Security](#) [more tags](#)

Group toolbar

- [Create File](#)
- [Create Forum topic](#)
- [Create Event](#)
- [Create Online Meeting](#)
- [Create News Item](#)
- [Create Page](#)
- [Create Video](#)
- [Create Wiki page](#)
- [Group forums](#)
- [Manage group forums](#)
- [28 members](#)
- Manager: [brad_martin](#)
- [My membership](#)

Subgroups

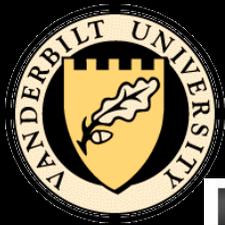
- [Science of Security](#)
 - [NSA SoS Lablets](#)
 - [NCSU Science of Security Lablet Research Initiative](#)
 - [CMU Science of Security Lablet Research Initiative](#)
 - [UIUC Science of Security Lablet Research Initiative](#)

Free, Online Meetings

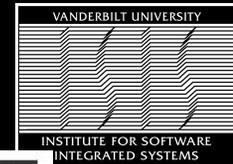
The screenshot displays a virtual meeting interface with several components:

- Users Panel:** A table listing participants with their roles and names. The 'rvmeush' user is selected.
- Chat Panel:** A text-based chat window with a 'Send' button. The message reads: 'Welcome to BI-Weekly SoS Telecon 14:30'.
- Video Dock:** Two video thumbnails are visible: 'Chris.vanBuskirk (you)' and 'adyson'.
- Main Presentation Slide:** Titled 'Objectives', it features logos for NITRD and Virtual CPS Organization. The content includes:
 - Community Building**
 - promoting **collaboration** and close interaction between **academia, industry & government**
 - facilitating **interactions** across technical disciplines & across applications areas
 - cross-fertilization** of research in **CPS Core Sciences** and applied **research** in domain- and mission-oriented problems in a multi-agency setting
 - Collaboration Support via the website**
 - information flow** and awareness of CPS activities
 - collaboration** and professional networking
 - knowledge repository** to facilitate the open exchange of challenge problems, research results, tools, and educational materials

* Supporting CPS/NITRD community activities
- Listeners Panel:** A panel on the left side of the interface, currently empty.
- Navigation:** A 'Switch Presenter' button is visible near the Users panel. At the bottom, there are navigation arrows, a page indicator '3/32', and zoom controls set to 100%.



Invite Others to Meetings



CPS-VO NEWS BROWSE SEARCH COLLABORATE MY GROUPS Hello, Chris.vanBuskirk | My Account | Log out Search

Cyber Physical Systems Virtual Organization

Fostering collaboration amongst CPS professionals and industry

CPS-VO » SOS VO REVIEW MEETING »
Invitation: SOS VO Review Meeting [VIEW](#) [EDIT](#)

[Manage guests](#) [Send message](#)

- New guests have been added. Do not forget to send the invitations.
- Successfully added these guests:
Example_Member
Guest User

GUEST LIST [Export guest list](#)

Responses
0 0 0 2
As of Wed, 25 Jul 2012 23:18:55 GMT

No invitation sent [[Send invitation](#)] (2)

- [Example_Member](#) Jul 25 2012 - 7:18pm
- [Guest User](#) Jul 25 2012 - 7:18pm

No response (2)

- [Example_Member](#) Jul 25 2012 - 7:18pm
- [Guest User](#) Jul 25 2012 - 7:18pm

View: [Date](#) | Alphabetically

You may invite members of the following groups

- 2010 CPS PI Meeting
 - admin
 - vbuskirk
 - Janos.Sztipanovits
 - Helen Gill
 - Chris.vanBuskirk
 - gabor
 - kfisher
 - KNEW
- 2011 CPS PI Meeting
 - sokolsky
 - Katie Dey
 - tedbaker
 - ljuracz
 - Sri Kumar
 - jrjanowiak
 - bsullivan

Quickly Define Customized Forms

Fill Out and Submit the Following to Register for the 2012 HCSS Conference

Submitted by [Katie Dey](#) on Wed, 02/01/2012 - 7:57pm

Preferred Title:

- Mr
- Mrs
- Ms
- Professor
- Doctor

First Name: *

Last Name: *

Nickname:

Email: *

Phone:

Affiliation (Organization/Federal Agency):

Position/Title:

Date(s) Attending

SCC Meeting:

- Sun (May-6th)
- Mon (May-7th)

HCSS Conference:

- Tue (May-8th)
- Wed (May-9th)
- Thur (May-10th)

DIS Workshop:

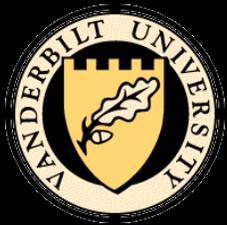
Registration

- › Create File
- › Create Forum topic
- › Create Event
- › Create Online Meeting
- › Create News Item
- › Create Page
- › Create Video
- › Create Webform
- › Create Wiki page
- › Create Group
- › 21 members
- Manager: › KNEW
- › My membership
- › Invite members

Subgroups

- [HCSS Conferences](#)
 - [2011 HCSS Conference Program Committee](#)
 - [2012 HCSS Conference Program Committee](#)

[+] Feedback



Group Activity Streams

Activity Stream | CPS-VO

cps-vo.org/group/satc/recent

Content management Site building Organic groups Site configuration CPS-VO Admin Messaging & Notifications User management Reports Advanced help Example help Help 16 / 3 Log out admin

CPS-VO MY GROUPS MY ACCOUNT 36 1 Log out ? Search

2012 Secure and Trustworthy Cyberspace Principal Investigators' Meeting

CPS-VO » 2012 SECURE AND TRUSTWORTHY CYBERSPACE PRINCIPAL INVESTIGATORS' MEETING » ACTIVITY STREAM

Activity Stream EDIT GROUP REVISIONS TRACK CLONE TAXONOMY BROADCAST PANELS DEVEL

- Home
- Program
- Registration
- Poster Session
- Organizers
- Venue
- Activity Stream**
- Files

COLLABORATE

- Create Event
- Upload File
- Create Forum Topic
- Create Group
- Create News Item
- Create Online Meeting
- Create Project
- Create Video
- Create Webform
- Create Wiki Page
- Create Web Page

SUBGROUPS

MEMBER INFO

2012 Secure and Trustworthy Cyberspace Principal Investigators' Meeting

Node: Type

- Event
- File
- Forum topic
- Group Project
- News Item
- Online Meeting
- Page
- Panel

SaTC PI Meeting Survey

Submitted by [Katie Dey](#) on Sun, 11/25/2012 - 9:22pm

Organic Social Firewall: A Human-Computational Study of Trustworthy Communications

Submitted by [Katie Dey](#) on Wed, 11/21/2012 - 11:16pm. Contributor: [Shuyuan Mary Ho](#)

172.96 KB | 0 views | 13 downloads Download

Florida State University trusted human computer interaction socio-technical system information systems security online deception

SaTC PI Meeting 2012 Poster Academia SaTC Posters

Evolutionary Approaches to Privacy and Information Security

Submitted by [Katie Dey](#) on Wed, 11/21/2012 - 10:57pm. Contributors: [Alessandro Acquisti](#) | [Laura Brandimarie](#) | [Jeff Hancock](#)

224.22 KB | 0 views | 17 downloads Download

CMU Cornell SaTC Posters

Security Monitoring for Wireless Network Forensics

Submitted by [Katie Dey](#) on Mon, 11/12/2012 - 10:11am. Contributor: [Ping Ji](#)

1.09 MB | 0 views | 1 downloads Download

City University of New York (CUNY) - John Jay College Wireless Security Forensics Monitoring SaTC PI Meeting 2012 Poster Academia

SaTC Posters

A Digital Forensics Cyberinfrastructure Workforce Training Initiative for America's Veterans

Feedback



Popular Content



11:17 PM

63%

Navigation bar with back, forward, and search icons. Search bar contains 'cps-vo.org/group/SoS/popular'. Tab title is 'Popular | CPS-VO'.

CPS-VO » SCIENCE OF SECURITY VO » POPULAR

Popular

EDIT GROUP TRACK TAXONOMY BROADCAST PANELS

- Home
- About
- Calendar
- Members
- Activity Stream
- Search
- Popular** →
- Advanced
- Forums
- Files

Popular Content

Type	Title	Total views	Views today	Most recent view	Author	Contributor(s)	Post date	Last updated
Event	First (2012) Science of Security Community Meeting	601	1	1 hour 25 min ago	adyson		04/16/12	4 weeks 4 days ago
News Item	IEEE Security & Privacy updated	381	0	1 day 22 hours ago	Anonymous		01/13/12	2 weeks 4 hours ago
Event	Conference on High Confidence Networked Systems (HiCoNS)	261	0	6 days 10 hours ago	Janos.Sztipanovits		04/16/12	20 weeks 4 days ago
Event	Twelfth Annual HCSS Conference	254	0	17 hours 48 min ago	adyson		04/16/12	30 weeks 5 days ago
File	Designed-In Security	239	0	1 day 39 min ago	Katie Dey	Carl Landwehr	05/16/11	3 weeks 2 days ago
Event	HCSS'11	229	0	2 days 2 hours ago	Janos.Sztipanovits		04/16/12	18 weeks 7 hours ago
File	Guardol: A Domain-Specific Language for Guards Supporting Strong Automated Formal Analysis	192	0	3 days 21 min ago	Katie Dey	Konrad Slind	05/16/11	24 weeks 6 days ago
News Item	Science of Security Community Meeting	190	0	1 day 15 hours ago	Katie Dey		05/25/12	3 weeks 8 hours ago
Page	NSA Science of Security Lablets Research	190	0	9 hours 3 min ago	Katie Dey		08/01/12	3 weeks 5 days ago

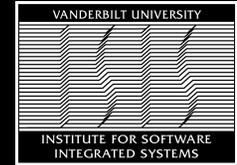
COLLABORATE

SUBGROUPS

MEMBER INFO



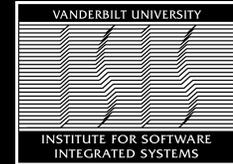
Outline



- Mission Statement
- The VO Community Portal
- VO Groups
- User-Oriented Services



My Account



My Dashboard

Other User's Dashboard

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- Edit My Profile
- My Network
- My Group Activity
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- Notifications
- OpenID Identities
- Contact
- delicious
- File browser

MY GROUPS

Name: Christopher vanBuskirk
Professional Title: Research Project Manager
Organization: Vanderbilt University
Location: Nashville, Tennessee
Contact Info:
615.473-8495
1025 16th Ave. South, Suite 102
Nashville, Tennessee 37212
Chris.vanBuskirk@vanderbilt.edu

Website(s):
Projects:
Virtual Organization for Cyber-Physical Research (VO-CyPhER)

Biography [hide]

A Senior Research Engineer and Project Manager at Vanderbilt's *Institute for Software Integrated Systems* for the past thirteen years, Chris' general professional interests lie in the practical application of novel, model-based formalisms and design methodologies to complex, real-world, human-in-the-loop, science/engineering activities. After completing an M.S. in Engineering at The University of Mississippi, Chris has pursued a career in R&D at organizations such as Cray Research Inc., UMess Medical Center, The National Cancer Institute and Johns Hopkins University. Currently, in addition to project management duties on the DARPA AVM Program's *META Language* and *META Design Flow* projects, Mr. vanBuskirk also serves as PI for the NSF's *CPS Virtual Organization* (<http://cps-vo.org/>), which actively supports the formation and development of distributed research communities required by the demanding challenges of the massively multi-disciplinary *cyber-physical systems* domain.

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Janos Sztipanovits VIEW EDIT TRACK

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- Add to My Network
- Follow Posts

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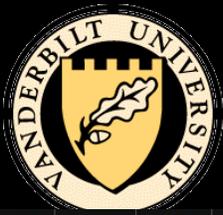
Name: Janos Sztipanovits
Professional Title: E. Bronson Ingram Distinguished Professor of Engineering
Organization: Vanderbilt University
Location: Nashville, Tennessee
Contact Info:
6153223455
Institute for Software Integrated Systems Vanderbilt University 1025 16th Ave. S.
Nashville, Tennessee 37212
janos.sztipanovits@vanderbilt.edu

Website(s):
ISIS-Vanderbilt

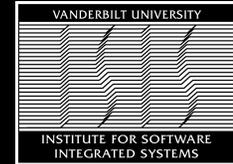
Projects:

Biography [hide]

Dr. Janos Sztipanovits is currently the E. Bronson Ingram Distinguished Professor of Engineering at Vanderbilt University. He is founding director of the Institute for Software Integrated Systems (ISIS). His current research interest includes the foundation and applications of Model-Integrated Computing for the design of Cyber Physical Systems. His other research contributions include structurally adaptive systems, autonomous systems, design space exploration and systems-security co-design technology. He served as program manager and acting deputy director of DARPA/ITO between 1999 and 2002 and he was member of the US Air Force Scientific Advisory Board between 2006-2010. He was founding chair of the ACM Special Interest Group on Embedded Software (SIGBED). Dr. Sztipanovits was elected Fellow of the IEEE in 2000 and external member of the Hungarian Academy of Sciences in 2010. He graduated (Summa Cum Laude) from the Technical University of Budapest in 1970 and received his doctorate from the Hungarian Academy of Sciences in 1980.



User Meta-Data & Search



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My account

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account user profile

Profile Subscriptions (0)

Contributions

MY TOOLS

Edit My Profile

First Name: *
Christopher

Middle Initial:
P

Last Name: *
Buskirk

MY GROUPS

Topics:

CPS Domains

- Consumer
- Communication
- Defense
- Energy
- Critical Infrastructure
- Health Care
- Manufacturing
- Robotics
- Transportation

CPS Technologies

- Architectures
- Design Automation Tools**
- Embedded Software
- Platforms
- Systems Engineering**
- Wireless Sensing and Actuation

Education

- Foundations
- Architectures
- Composition
- Concurrency and Timing
- Control

Modeling

- Hybrid Models
- Multi-models
- Model Integration

Search for VO Community Members | CPS-VO

SEARCH FOR CONTENT
SEARCH FOR A GROUP
SEARCH FOR PEOPLE
SEARCH FOR A PROJECT
TAGCLOUD

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CPS-VO
Search for VO Community Members

Keyword search

Search

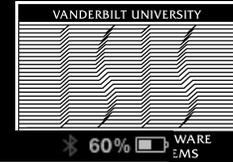
Guided search

Click a term to initiate a search.

First Name	Last Name	Organization	Topics				
Aaron (4)	Alper (1)	Annaswamy (1)	Alvarado (1)	Carnegie Mellon University (4)	Bradley Department of Electrical and Computer Engineering, Virginia Tech (1)	3-D Printing (3)	Avionics (6)
Abdul (1)	Alwyn (1)	(STP) Seim (1)	Alves (1)	National Science Foundation (4)	Case Western Reserve University (1)	Aerospace (5)	Communication (10)
Abhishek (2)	Ambler (1)	. (1)	Amber (1)	Vanderbilt University (4)	Carnegie-Mellon University (2)	Architectures (13)	Composition (10)
Adam (2)	Amir (2)	2012 (1)	Ames (1)	Vanderbilt University (4)	Case Western Reserve University (1)	Architectures (11)	Design Automation Tools (12)
Adel (1)	amit (1)	Abbeel (1)	Amin (1)	Carnegie Mellon University (2)	Case Western Reserve University (1)	Automotive (8)	Ground Vehicles (4)
Adele (1)	Amy (1)	Abdelzaher (1)	Amy (1)			Certification (3)	Models of
Aditya (2)	Anaheed (1)	Abid (1)	An (1)			Consumer (3)	



Activity Stream for All My Groups



11:45 PM

Browser address bar: cps-vo.org/group

Browser tabs: Unread posts in my groups | CPS-VO

Unread posts in my groups

My Unread | My Recent | All Posts

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Group(s):

<Any>

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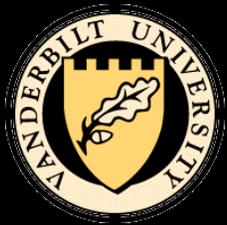
Mark selected as read

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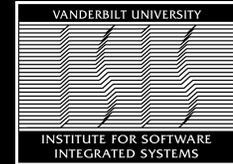
- Edit My Profile
- Groups Activity Stream (1/2)**
- Contacts Activity Stream
- My Contacts
- My Notifications
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- My Bookmarks
- My History
- My Chats
- My Files

MY GROUPS

Select All	Original Author	Updated	Originally Posted On	Title	Replies	Groups	Type
0 items selected. Clear selection							
<input type="checkbox"/>	 rvmeush	4 hours 41 min ago	Nov 24 2012 - 9:26am	WEIS 2013 - The Twelfth Workshop on the Economics of Information Security	0	Science of Security VO	Event
<input type="checkbox"/>	 Heather Lucas	9 hours 18 min ago	Nov 26 2012 - 2:26pm	Request for Comments (RFC)- Federal Cybersecurity Research and Development Strategic Plan	0	Science of Security VO	News Item
<input type="checkbox"/>	 Heather Lucas	9 hours 27 min ago	Nov 26 2012 - 2:17pm	Third ACM Conference on Data and Application Security and Privacy (CODASPY 2013)	0	Science of Security VO	Event
<input type="checkbox"/>	 Katie Dey	9 hours 37 min ago	Nov 12 2012 - 6:37pm	NSF WATCH Talk: Medical Device Cybersecurity: The First 164 Years	0	Science of Security VO	Event



Maintain a Professional Network



CPS-VO »
Chris.vanBuskirk

OpenID identities Contact Badges delicious F

Profile Contributions

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- OpenID identities
- Contact
- Badges
- delicious
- File browser

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Relationships

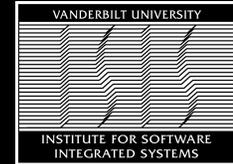
All Pending contacts

	Janos.Sztipanovits	professional contact	Remove
	sushilkbirla	professional contact	Remove
	rvmeush	professional contact	Remove
	KNEW	professional contact	Remove
	Katie Dey	professional contact	Remove
	hclucas	professional contact	Remove
	adyson	professional contact	Remove
	bmarchman	professional contact	Remove
	cxbrooks	professional contact	Remove

[+] Feed



Contacts Activity Streams



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MY GROUPS

Activity Stream

Name: Christopher vanBuskirk
Professional Title: Research Project Manager
Organization: Vanderbilt University
Location: Nashville, Tennessee
Contact Info:
615.473-8495
1025 16th Ave. South, Suite 102
Nashville, Tennessee 37212
Chris.vanBuskirk@vanderbilt.edu
Website(s):
Projects:
[Virtual Organization for Cyber-Physical Research \(VO-CyPhER\)](#)

Biography [show]

13 reads >

CPS Domains CPS Technologies Education

Janos Sztipanovits is going to: 2012 CPS PI Meeting
2 hours 14 min ago

Katie Dey is going to: 2012 CPS PI Meeting
16 hours 36 min ago

Christopher P vanBuskirk liked: [CPSWeek 2013] Call for Workshops and Tutorials
2 days 18 hours ago

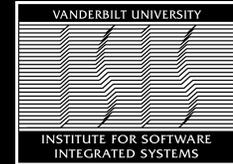
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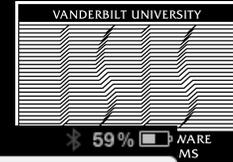
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Title	Type	Remove	Saved on
Tutorial	Page		Aug 28 2012 - 5:19pm
CPS PI Meeting 2012 - Invitation Letter	Page		Aug 9 2012 - 5:13pm

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Navigation History



11:49 PM

59% WARE MS

Navigation bar with back, forward, and search icons. Address bar: cps-vo.org/user/33/track/navigation. Search engine: Google. Tab title: Chris vanBuskirk | CPS-VO

Chris vanBuskirk

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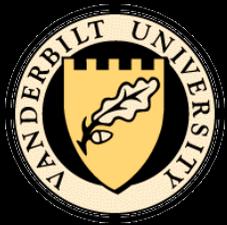
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- [Contacts Activity Stream](#)
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MY GROUPS

Timestamp	Page	Operations
Nov 26 2012 - 11:44pm	Unread posts in my groups group	details
Nov 26 2012 - 11:44pm	My account users/chrisvanbuskirk	details
Nov 26 2012 - 11:40pm	Search for VO Community Members people_search	details
Nov 26 2012 - 11:40pm	Welcome to the home page of the Cyber Physical Systems Virtual Organization home	details
Nov 26 2012 - 11:40pm	Welcome to the home page of the Cyber Physical Systems Virtual Organization home	details
Nov 26 2012 - 11:17pm	Science of Security VO node/488/og_panels	details
Nov 26 2012 - 11:16pm	Popular group/SoS/popular	details
Nov 26 2012 - 11:14pm	Activity Stream group/SoS/recent	details
Nov 26 2012 - 11:14pm	Science of Security VO group/SoS	details
Nov 26 2012 - 11:14pm	Science of Security VO group/SoS	details
Nov 26 2012 - 11:12pm	node/488/og_panels/129/panel_co ...	details
Nov 26 2012 - 11:12pm	node/488/og_panels/129/panel_co ...	details
Nov 26 2012 - 11:12pm	Science of Security VO node/488/og_panels	details
Nov 26 2012 - 11:10pm	Activity Stream group/SoS/recent	details
Nov 26 2012 - 11:08pm	Search group/SoS/search	details
Nov 26 2012 - 11:08pm	Science of Security VO group/SoS	details



Chat

Chat

Go Idle

- admin
- C.Mani Krishna
- jklingler
- Johan de Kleer
- zsolt
- bmarchman
- elucier
- kbrady
- Mike.Myers

Chat (9)

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- ORGANIZE ONLINE MEETINGS

In the Spotlight



33rd IEEE Real-Time Systems Symposium (RTSS) 2012

IEEE Real-Time Systems Symposium (RTSS) is the premier conference in the area of real-time systems, presenting innovations in the field with respect to theory and practice. RTSS provides a forum for the presentation of high-quality, original research covering all aspects of real-time systems design, analysis,...



Solicitations

- NSF 2013 CPS Solicitation**
Cyber-physical systems (CPS) are engineered systems that are built from and depend upon the synergy... [more](#)
- CFP: Model-driven Approaches for Simulation Engineering**
Papers Due: *** November 19, 2012 *** Extended *****
CALL FOR PAPERS3rd International... [more](#)
- NSF Solicitation: Expeditions in Computing**
The far-reaching impact and rate of innovation in the computing and information disciplines has... [more](#)

Upcoming Events

- 11/28/12 - 11/30/12
International Conference on Embedded and Ubiquitous Computing (ICEUC)
The Eighth International Conference on Embedded and Ubiquitous Computing aims to bring together... [more](#)
- 12/04/12
5th Workshop on Compositional Theory and Technology for Real-Time Embedded Systems (CRTS 2012)
Call for papers:
CRTS 2012 5th Workshop on Compositional Theory and... [more](#)
- 01/07/13
Energy in Communication, Information, and Cyber-Physical Systems (ECCIPS) Workshop

CPS Research Projects

- Dependability Techniques for Instrumented Cyber-Physical Systems
- Collaborative Research: CyberMech, a Novel Run-Time Systems
- Efficient Control Synthesis and Learning in Distributed Cyber-Physical Systems
- Enabling and Advancing Human and Probabilistic Context-Aware Elder Care
- Collaborative Research: Remote Imaging of Community Emergency Networks
- A Cross-Layer Approach to Taming Cyber-Physical Uncertainty in Networking and Platoon Control
- Random Matrix Recursions and Estimation and Control of Cyber-Physical Systems
- Collaborative Research: GOAL: Methods for Network-Enabled Control for High-Performance-Buildings
- Cloud Environmental Analysis and Relief
- Collaborative Research: Smart Power Systems of the Future

Recent News

- CPS Highlighted in NSF's FY 2013 Budget**
Important NSF Announcement! Farham Jahanian, NSF Assistant Director for Computer and Information Science and Engineering (CISE)... [more](#)
- TC Cyber Café**
View the results from the first TC ONLINE Cyber Café, signed to identify critical issues cybersecurity and encourage collaborative... [more](#)
- Proceedings of the IEEE -- Special Issue on CPS**
The January 2012 Special Issue of the IEEE Transactions on Cybernetics and Systems

SoS Chatroom

Hi Heather and Bob

rvmeush 15:52
hello

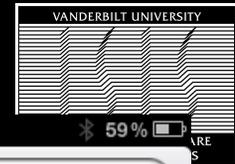
Heather Lucas 15:54
Hi
What's everyone doing?
I created project pages for the UIUC group, taking from their webpage. I need help creating a Projects Tab in the group, I

SoS Chatroom

Feedback



Chats History



11:50 PM

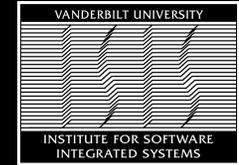
Navigation bar with back, forward, and search icons. Address bar: cps-vo.org/drupalchat/messages. Search bar: Google. Tab: Chat Messages | CPS-VO

Navigation menu: CPS-VO, BROWSE, SEARCH, COLLABORATE, MY GROUPS, MY ACCOUNT. User status: 142, Log out, ?

Header banner for Cyber Physical Systems Virtual Organization. Includes logos for CPS-VO and NSF. Text: **Cyber Physical Systems Virtual Organization**
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Chat Messages section with 'Inbox' and 'View Message' tabs.

rvmeush	Fri, 11/09/2012 - 2:25pm
okay, thanks	
srees	Fri, 11/09/2012 - 1:27pm
I need to update template.php on VO1, but it is out of date with SVN. Do you know if it's okay to synch VO1 with SVN?	
akarns	Fri, 11/09/2012 - 1:18pm
I need to update template.php on VO1, but it is out of date with SVN. Do you know if it's okay to synch VO1 with SVN?	
vbuskirk2	Fri, 11/09/2012 - 1:14pm
o&o	
Katie Dey	Mon, 10/29/2012 - 12:17pm
..	



Questions / Discussion ?