

JaSST'15 Tokyo

# **ASTER国際連携活動事例**

**～世界に目を向けよう～**

**辰巳 敬三**

**2015年2月20日**

# 品質/テスト技術者の知識の原産国は?

## □ SQuBOK V2で紹介する文献数

参考文献/関連文献	505 点
規格(標準)	185 点
合 計	690 点



## □ SQuBOK文献作成国(書籍・論文・Web)

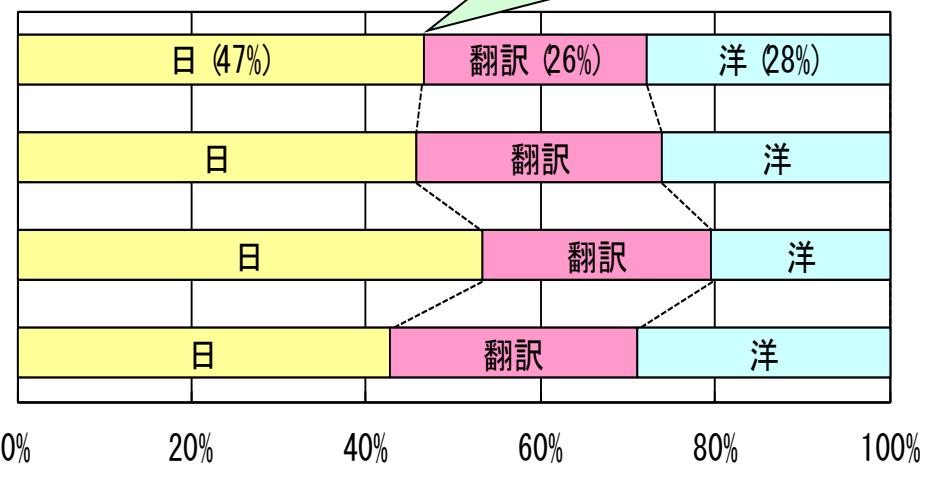
SQuBOK®ガイド V2全体(505点)

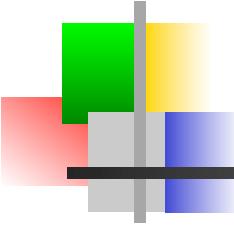
第1章 ソフトウェア品質の基本概念(96点)

第2章 ソフトウェア品質マネジメント(171点)

第3章 ソフトウェア品質技術(286点)

翻訳書、洋書(主に米国)  
が50%強を占める

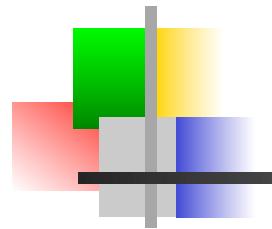




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- 4. 海外のテスターとつながろう**
- 5. まとめ**



# 1. ソフトウェアテストの国際会議

## アカデミック系

### □ ISSTA (International Symposium on Software Testing and Analysis)

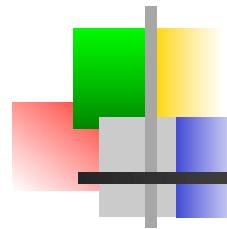
- 主催: ACM (Association for Computing Machinery)
- 第1回は1993年、元をたどると1978年のworkshop
- 研究者、企業の実務者、ICSTに比べてアカデミア寄り
- 併設ワークショップ: モデル検査、テスト自動化・モデルベース、パフォーマンス など

### □ ICST (International Conference on Software Testing, Verification and Validation)

- 主催: IEEE (The Institute of Electrical and Electronics Engineers)
- 第1回は2008年(ノルウェイ)、毎年、米欧で交互に開催
- 研究者、企業の実務者、ISSTAに比べて実務者の参加が多い
- 併設ワークショップ: モデルベース、セキュリティ、組み合わせ、クラウド など

### □ ICSE併設ワークショップ (International Conference on Software Engineering)

- AST (Automation of Software Test)
- CSTVA (Constraints in Software Testing, Verification and Analysis)



# ソフトウェアテストの国際会議

## コンサルタント、実務者系

- STAREAST, STARWEST (Software Testing Analysis & Review Conference)
  - 主催:SQE (Software Quality Engineering)
  - 第1回は1992年
- CAST (Conference of the Association for Software Testing)
  - 主催:AST (The Association for Software Testing)
  - 第1回は2006年
- EuroSTAR (European conference on Software Testing, Analysis & Review)
  - 主催:QualTech Ltd.
  - 第1回は1993年
- その他
  - GTAC (Google Test Automation Conference)
    - Google主催のカンファレンス, 2006年から毎年開催

## 2. テストの国際会議への参加

### □ ASTER 国際調査活動 Webサイト

<http://www.aster.or.jp/activities/investigation.html>

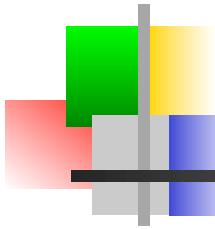
The screenshot displays two browser windows side-by-side. The left window shows the main homepage of the ASTER International Investigation Activities website, featuring a sidebar with navigation links like HOME, Business Scheme, Main Activities, and Organizational Profile. The right window shows a specific report page for the ICST 2013 conference, with a sidebar containing links for various activities and reports. Both pages include sections for reports, organization profiles, and test design contests.

<http://www.aster.or.jp/activities/investigation/icst2013.html>

This screenshot shows the detailed participation report for the ICST 2013 conference. It includes a header with the reporter's name (辰巳 敬三 (NPO ASTER)), a section titled 'はじめに' (Introduction) with a summary of the reporter's participation, and a section titled 'ICST2013の概要' (Overview of ICST2013) with a link to the 2012 report. There is also a photograph of the city of Luxembourg.



[写真1] ノイミンスター修道院文化

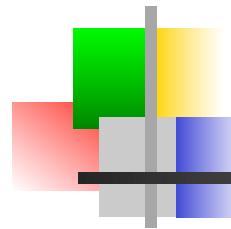


# ICST

## □ ICST (International Conference on Software Testing, Verification and Validation)

- 主催 : IEEE (The Institute of Electrical and Electronics Engineers)
- 第1回は2008年(ノルウェイ)、以後毎年、米欧で交互に開催

The screenshot shows the homepage of the ICST 2008 conference. The header features a blue banner with the text "ICST 2008" in large white letters, followed by "First International Conference on Software Testing, Verification, and Validation" and "Lillehammer, Norway April 9-11, 2008". Below the banner are two images: a landscape view of a lake and mountains on the left, and a town with houses and a church on the right. The main content area has a white background. On the left is a vertical sidebar with links: Home, Charter, Location/Travel, Student grants, Program, Registration, Workshops, Keynotes, Accepted papers, Calls for contributions, Camera ready kit, and Submission. In the center, there's a "Welcome!" section with a purple ICST logo, a "Highlights" section listing the conference's focus (bringing practice and research together, 65 presentations, 8 workshops, covering all areas of software quality), and links to Annie Combelle's and Mary Jean Harrold's keynote slides. To the right is a "Sponsors" section featuring logos for TCSE, IEEE Computer Society, and IEEE. At the bottom is a "Supporters" section with the DNV logo and a brief description of the conference's purpose.



# ASTER国際調査メンバーの参加

## □ ICST 2012 Montreal, Canada

- 参加者: 250名(27ヶ国)
- 論文数: 投稿-176本、採択-46本(26%)
- 日本: 参加者-4名、発表-0



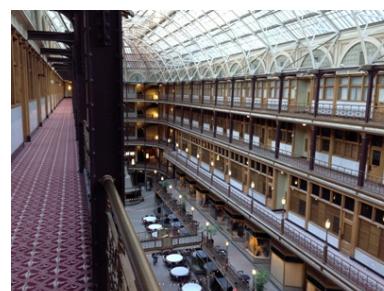
## □ ICST 2013 Luxemburg

- 参加者: 289名(40ヶ国)
- 論文数: 研究-120本、採択-30本(25%)  
+産業界論文-8本
- 日本: 参加者-11名、発表-6件(Tool,  
Poster, Workshop)

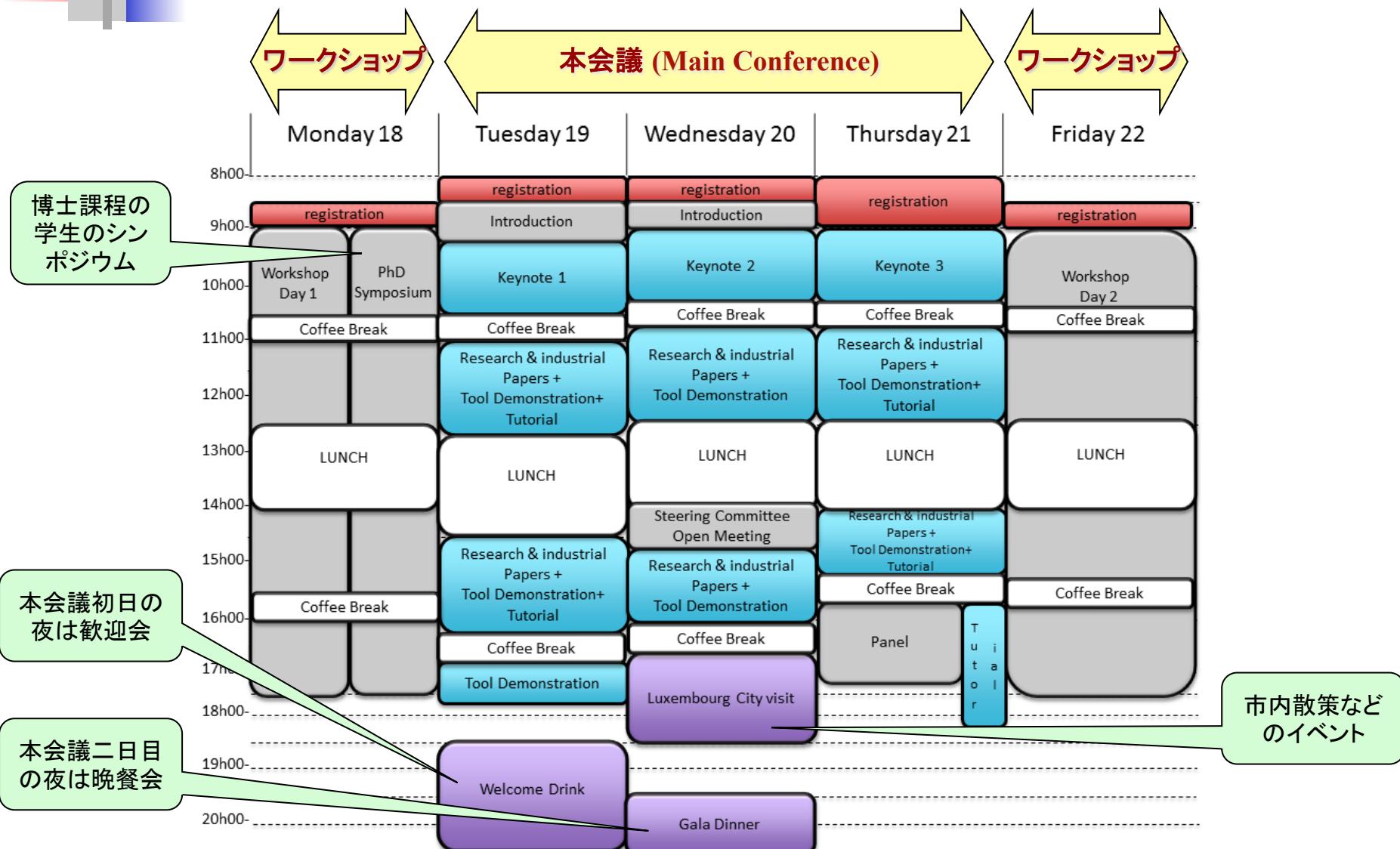


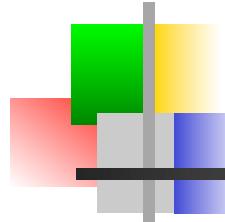
## □ ICST 2014 Cleveland, Ohio USA

- 参加者: 本会議-150名、WS-145名
- 論文数: レビュー-141本、採択-40本(28%)
- 日本: 参加者-11名、発表-6件  
(Industry, Tool, Workshop)



# 国際会議のスケジュール (ICST 2013)





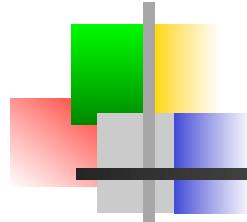
# ICSTのテーマ

		ICST 2008	ICST 2009	ICST 2010	ICST 2011	ICST 2012	ICST 2013	ICST 2014
Session	Model Based Testing	○	○	○	○	○	○	○
	Test Case Generation		○		○		○	○
	Mutation Testing		○	○	○		○	○
	Web Testing	○	○	○	○	○		
	GUI Testing		○	○		○		
	Regression Testing	○		○	○			○
	Search-Based Testing				○	○		○
	Security Testing		○	○	○			
	Bugs, Faults, and Failures	○	○			○	○	○
	Coverage, White-box		○			○	○	○
Workshops	Model Based Testing	○	○	○	○	○	○	○
	Mutation Analysis		○	○	○	○	○	○
	Security Testing	○			○	○	○	○
	Search-Based Testing	○	○	○	○	○	○	ICSEへ
	Regression Testing				○	○	○	○
	Combinatorial Testing				○	○	○	○
	Testing the Cloud			○				○

# 3. 世界に目を向けてみよう

■ テストコミュニティによる  
オンラインマガジンの発行





# テストのオンラインマガジン

## ■ Tea-time with Testers

2011年1月にインドのテストコミュニティが創刊した月刊オンラインマガジン。米欧の著名なテスト関係者からも多数の寄稿がある。



### Editorial

Of Love and Lights...

New season has already started showing its arrival. Air is turning pleasant and atmosphere is getting filled with joy, excitement and love.

There is one more thing about festivals. No matter where we are, how we are, there always gets us a happy feeling when we celebrate. And without expecting anything from anyone or anyone. One of the other things that I like about festivals is this, they teach us the way of going. And how could we not give our readers something awesome this festival season? I am glad to offer you TV for Testing, a new addition to our magazine.

Over the period of time, we realized that there are testers with amazing ideas and skills with them but not everyone can express it well when it comes to writing. So we decided to create an alternative platform for them to express their ideas. We have created a new section called TV for Testing. It will be some additional platform to learn from our industry leaders and experts in the form of their video interviews, webinars, tool demos etc. We have already posted some amazing videos on TV for Testing. Come and see what you are going to like them.

First issue of Software Test Magazine is all set ready to be launched on Diwali. I will let you find more about it in its launch edition itself.

Till then, enjoy this awesome issue of Tea-time with Testers. On behalf of TTWT family, I wish you a very happy and prosperous Diwali in advance. May this season shower you with light of wisdom and success.

We will meet soon.

Yours Sincerely,  
Lalitkumar Bhambhani  
editor@teatimewithtesters.com  
[Facebook](http://www.facebook.com/teatimewithtesters) [Twitter](http://www.twitter.com/teatimewithtesters)



**Tea & Testing with Jerry Weinberg**

**Managing in a Team Environment**

**Are you the problem?**

When you are unable to get teamwork, it's often because of something you are doing. It may be that you are being controlling, or that you have a tendency to evaluate your team members, which is intended to help each member of the team learn together. If you have this effect, by evaluating the individual members of the team, no matter how well you do it, you are sending a message that you're not able to trust their own evaluation of each other.

If you feel you have to give performance appraisals, a more effective way is to appraise the team performance and ask the team to appraise the performance of each member. The external performance appraisal is done by the team, and each member receives an individual's rating as given by the team. This approach says to you trust the team to do what's best for meeting the goals you give it, and that they all get credit equally from you for meeting those goals as a team.

Note! Read complete article from June 2011 issue.

[teatimewithtesters.com](http://teatimewithtesters.com)

September 2014 | 14

**Internet of Everything – Architecture and Risks**

**IoE Architecture**

**A Layered Model of the IoE**

In the same way that standards for networking devices at the periphery are evolving, there is no standard or conventional architecture for the IoE. However, some patterns are emerging and as might be expected, the architecture can be split into logical layers:

```

graph TD
    Application[Application] --> Integrator[Integrator]
    Integrator --> FilterGateway[Filter Gateway]
    FilterGateway --> Messenger[Messenger]
    Messenger --> Client[Client]
    Client --> Object[Object]
    Object --> Device[Device]
  
```

[teatimewithtesters.com](http://teatimewithtesters.com)

September 2014 | 15

**Testing Lessons from the Design Thinking World**

by Parimala Heriprasad

CAST is a very special conference for me (apart from Let's Test and Bug Debug). I have several friends who have attended this conference and told me that I MUST attend this conference, even if it is all my own expenses. Two years ago, I told myself that someday I will present at CAST. My dream has come true this year. My family thinks I am crazy. For me, it's worth my time, effort and money for the wonderful testers I met at this conference.

The Key Highlights of My CAST Talk revolved around below topics:

1. Emotions Testing
2. Multi-Sensory Experience
3. Testing for Emotions
4. Customer Touch Points

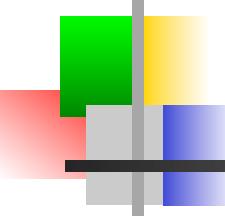
Let me cover each one of them in detail below:

**Emotions Testing**

Several years ago, Don Norman was on a radio show along with designer Michael Graves. They were discussing Michael Graves' creation, the "Toaster" (toaster), as being pretty to look at, but difficult to use. A listener called in. The caller owned the Rooster. "I love my toaster," he said defensively. "When I wake up in the morning and stumble across the kitchen to make my cup of tea, it always makes me smile." His message seemed to be: "So what if it's a little difficult to

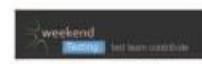
[teatimewithtesters.com](http://teatimewithtesters.com)

September 2014 | 15



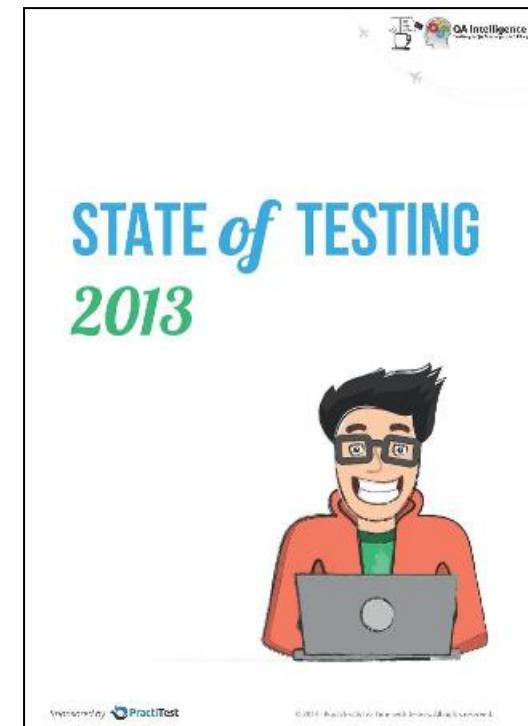
# 海外のテスターのBlog

**COLLABORATORS**

<b>The Social Tester</b> <a href="http://thesocialtester.co.uk">http://thesocialtester.co.uk</a>	<b>Quality Remarks</b> <a href="http://qualityremarks.com">http://qualityremarks.com</a>	 <b>QA Intelligence</b> Testing. Quality. Improvement.
<b>All Things Quality</b> <a href="http://www.allthingsquality.com">http://www.allthingsquality.com</a>	<b>Qx2 Services</b> <a href="http://qx2.com/blog">http://qx2.com/blog</a>	 <b>World of Clean Software</b> Clean Code and Engineering of Testing
 <b>TESTHEAD.</b> <a href="http://www.mkitesthead.com">http://www.mkitesthead.com</a>	<b>Tester's Notebook</b> <a href="http://testersnotebook.wordpress.com">http://testersnotebook.wordpress.com</a>	 <a href="http://www.qualitytesting.info/forum">http://www.qualitytesting.info/forum</a>
<b>The Testers Edge</b> <a href="http://thetestersedge.com">http://thetestersedge.com</a>	<b>Adventures in QA</b> <a href="http://dnlknit.wordpress.com/">http://dnlknit.wordpress.com/</a>	 <b>Quality Continuous</b> <a href="http://andrei.contan.ro">http://andrei.contan.ro</a>
 <b>Inspired Tester</b> <a href="http://www.inspiredtester.com">http://www.inspiredtester.com</a>	<b>Stephen Janaway</b> <a href="http://www.stephenjanaway.co.uk">http://www.stephenjanaway.co.uk</a>	 <b>Testing Curator Blog</b> <a href="http://blog.testingcurator.com">http://blog.testingcurator.com</a>
 <b>weekend tester</b> <a href="http://enjoytesting.blogspot.in">http://enjoytesting.blogspot.in</a>	 <b>QA Insights</b> <a href="http://qainsights.com/">http://qainsights.com/</a>	 <a href="http://geekonomicon.wordpress.com">http://geekonomicon.wordpress.com</a>
<b>ANNA BE TESTING</b> <a href="http://annabetesting.blogspot.co.uk">http://annabetesting.blogspot.co.uk</a>	<b>My Technology Fetish</b> <a href="http://www.mytechfetish.com">http://www.mytechfetish.com</a>	 <b>WarpTest</b> <a href="http://warp-test.com">http://warp-test.com</a>
<b>Club QA Blogs</b> <small>club quality assurance, users blogs</small> <a href="http://clubqa.nu/blogs">http://clubqa.nu/blogs</a>	<b>MIKE LYLES' BLOG</b> <a href="http://mikelyles.wordpress.com">http://mikelyles.wordpress.com</a>	 <a href="http://www.fredberinger.com">http://www.fredberinger.com</a>
 <b>Testing Baires</b> <small>Passion for Software Testing</small> <a href="http://testingbaires.com">http://testingbaires.com</a>	 <b>Words From a Purple Mind</b> <a href="http://www.jayphilips.com">http://www.jayphilips.com</a>	 <b>TestSheepNZ</b> <a href="http://testsheepnz.blogspot.in/">http://testsheepnz.blogspot.in/</a>
 <a href="http://testingeduindia.blogspot.in">http://testingeduindia.blogspot.in</a>		

## ■ テスターBlog例

左の図はState of Testing Survey の調査に協力したテスターのBlog



[出典] State of Testing 2013 [http://practitest.com/pdf/State\\_of\\_Testing\\_Survey\\_2013.pdf](http://practitest.com/pdf/State_of_Testing_Survey_2013.pdf)

# 4. 海外のテスターとつながろう

## □ もう始めている方もいます…

### ■ テスト自動化研究会

・Dorothy Grahamさんを囲む会



・テスト自動化書籍翻訳

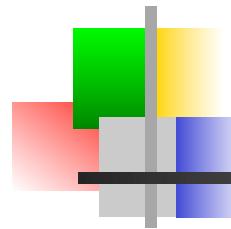


### ■ 日本Seleniumユーザーコミュニティ

・Jason Huggins氏の招待講演

### ■ State of Testing 翻訳プロジェクト



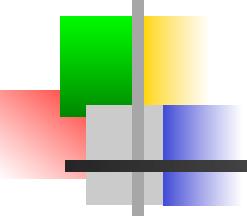


# 海外のテスターとつながつたら…

□ Tea-time with Testers 創刊4周年

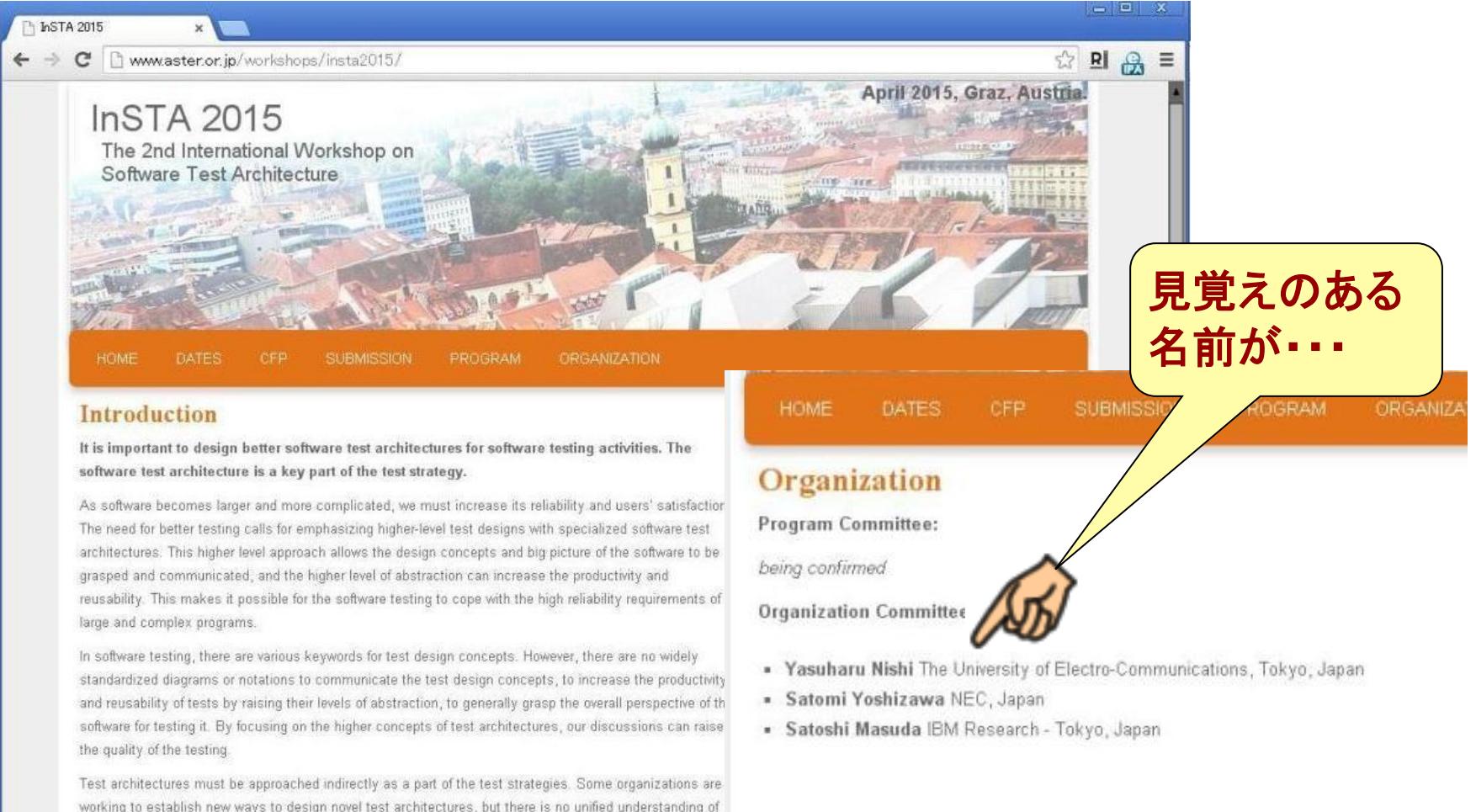
入れてくれました(^^)





# 国際会議を仕切る

## □ ICST 2015 にテストアーキテクチャWorkshopが採択



The screenshot shows the InSTA 2015 website, which features a banner for the '2nd International Workshop on Software Test Architecture' held in April 2015 in Graz, Austria. The website has a navigation bar with links for HOME, DATES, CFP, SUBMISSION, PROGRAM, and ORGANIZATION. A yellow speech bubble points to the 'ORGANIZATION' link with the text '見覚えのある名前が…' (Familiar name...).

**InSTA 2015**  
The 2nd International Workshop on Software Test Architecture

April 2015, Graz, Austria.

HOME DATES CFP SUBMISSION PROGRAM ORGANIZATION

**Introduction**

It is important to design better software test architectures for software testing activities. The software test architecture is a key part of the test strategy.

As software becomes larger and more complicated, we must increase its reliability and users' satisfaction. The need for better testing calls for emphasizing higher-level test designs with specialized software test architectures. This higher level approach allows the design concepts and big picture of the software to be grasped and communicated; and the higher level of abstraction can increase the productivity and reusability. This makes it possible for the software testing to cope with the high reliability requirements of large and complex programs.

In software testing, there are various keywords for test design concepts. However, there are no widely standardized diagrams or notations to communicate the test design concepts, to increase the productivity and reusability of tests by raising their levels of abstraction, to generally grasp the overall perspective of the software for testing it. By focusing on the higher concepts of test architectures, our discussions can raise the quality of the testing.

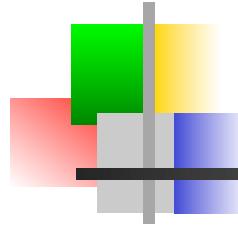
Test architectures must be approached indirectly as a part of the test strategies. Some organizations are working to establish new ways to design novel test architectures, but there is no unified understanding of

**Organization**

**Program Committee:**  
*being confirmed*

**Organization Committee:**

- **Yasuharu Nishi** The University of Electro-Communications, Tokyo, Japan
- **Satomi Yoshizawa** NEC, Japan
- **Satoshi Masuda** IBM Research - Tokyo, Japan



## *One more thing ...*

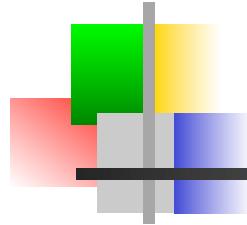
□2017年にICSTを日本で開催することになりました!

### ICST 2017 Tokyo

General and program Chairs



- General chairs
  - Dr. Yasuharu Nishi, University of Electro-Communications, Japan
  - Dr. Atif Memon, University of Maryland, USA
- Program chairs
  - Dr. Hironori Washizaki, Waseda University, Japan
    - A PC member of ICST
  - Dr. Ina Schieferdecker, Freie Universität Berlin, Germany
    - TBD



## 5. まとめ

- 残念ながら、国内の情報だけではソフトウェアテストの知識は十分ではない
- 世界の最新技術のフォローと、世界への発信に取り組もう
- その時には、きっとコミュニティの仲間の力が得られる筈

**ICST 2017での発表を目指してみませんか!**