

rom the beginning of the computer age, people have sought easier ways to learn, express, and understand computational ideas. Whether this meant moving from punch cards to textual languages, or command lines to graphical UIs, the quest to make computation easier to express, manipulate, and understand by a broader group of people is an ongoing challenge. The IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC) is the premier international forum for research on this topic. Established in 1984, the mission of the conference is to support the design, theory, application and evaluation of computing technologies and languages for programming, modeling and communicating, which are easier to learn, use, and understand by people.

# **Scope and Topics**

We solicit original, unpublished research papers that focus on efforts to design, formalize, implement, and evaluate computing languages and development tools that are easier to learn, easier to use, and easier to understand. This includes languages and tools expressed not only as text, but through any other means (visual, sketch-based, gesture-based, or otherwise). This also includes languages and tools intended for a wide range of audiences, including professional software developers, novice programmers, or other any other people who find a need to express computational ideas. We also seek papers that address cognitive, social, cultural, and theoretical aspects of efforts to lower barriers to computing.

Areas of interest include, but are not limited to:

- The design, evaluation, and theory of visual languages
- End-user development, end-user programming
- Novel user interfaces for expressing computation
- Human aspects of software development
- Debugging and program understanding
- Computer science education
- Software development tools
- Model-driven development
- Domain-specific languages
- Software visualization
- Query languages

# **Paper Submissions**

We invite two kinds of papers, due March 11, 2011:

- full-length research papers, up to 8 pages
- short research papers, up to 4 pages

All accepted papers, whether full or short, should be complete archival contributions. The contribution from full papers are more extensive than those from short papers. Short papers are *not* works in progress; incomplete or ongoing research should be submitted to the Posters category (described on the back). All submissions will be reviewed by members of the Program Committee. The paper deadline will **not** be extended.

Authors may optionally submit a short digital video or interactive illustration with paper submissions. Since not everyone who reviews your paper may view the video figure, your submission must stand on its own and will be reviewed as such. The videos of accepted papers will be distributed at the conference and will appear in the IEEE Xplore Digital Library. Video formatting details are available online.

Paper submissions (firm deadline)11 March 2011Notification of reviews27 May 2011Rebuttals due3 June 2011Notification of final decision10 June 2011Camera-readies due1 July 2011

# A Note on Evaluations

Research papers are expected to **support their claims with appropriate evidence**. For example, a paper that claims to improve programmer productivity is expected to demonstrate improved productivity; a paper that claims to be easier to use should demonstrate increased ease of use. However, not all claims necessarily need to be supported with empirical evidence or studies with people. A paper that claims to make something feasible that was clearly infeasible might substantiate its claim through the existence of a prototype. Moreover, there are many alternatives to empirical evidence, including analytical methods or formal arguments. We encourage authors to think carefully about what claims their submission makes and what evidence would support them.

#### **Posters & Demonstrations**

Posters and demonstrations provide an interactive forum in which authors can present work to conference attendees in the evening. This venue provides an opportunity to describe new work or work that is still in progress, and will be more lightly reviewed than papers. Presentations may include any combination of a poster, video, or live demonstration. Easels and boards will be available for posters, but demonstrations and videos should use their personal laptops, as no supporting equipment will be available from the conference.

Submissions must include a two-page abstract and a brief description of the planned presentation. The abstract must describe the research problem, contribution, and value to VL/ HCC attendees. Just like full and short papers, abstracts will be printed in the proceedings and be included in the IEEE Xplore Digital Library. The description of the presentation should be submitted as a separate document and its contents may vary depending on the presentation. Poster submissions should include a poster sketch.

Poster & demo submissions	17 June 2011
Notification of final decision	22 July 2011

# **Workshops and Tutorials**

The conference invites submissions for workshops and tutorials to be held in conjunction with the symposium. Both will be held at Carnegie Mellon University on the day before or after the conference. Please see vlhcc2011.cs.cmu.edu for more details.

Intention to submit email	3 January 2011
Proposal submission	10 January 2011
Notification of final decision	28 January 2011

#### **Graduate Consortium**

The conference will likely also hold a single-day graduate consortium for graduate students about their research. Details for this submission category will be available later. Current Ph.D. students are preferred, but M.S. students who intend to go on to pursue a Ph.D. may also apply. Students who have participated no more than once in previous VL/HCC graduate consortiums may also apply.

# **Pittsburgh**

Pittsburgh is frequently rated as one of America's most livable cities. USA Today notes that the city has "more in the way of diversions than many cities twice its size." Check out the skyline on a riverboat tour, or enjoy one of the many museums, including the Carnegie art, natural history, science, and Andy Warhol museums. While the city was historically known for its steel industry, today it is known for its healthcare, education. technology, and financial industries and is home to Carnegie Mellon University, the University of Pittsburgh, and several other top-ranked schools. The conference will be at Station Square, a 52-acre riverfront complex at the foot of Mount Washington that thrives with the city's most distinctive dining, entertainment and shopping.

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