Collaboration and other Skills for Sustainable Software Engineering Education and Training

Aims and Scope

The emergence of software engineering as a new term in the discipline of Computer Science / Computing / Informatics created significant challenges for educators. Embracing this new concept required a transition from a discipline of lone wolves and artistic heroes to a discipline of engineers focusing on product development in a planned process under constrained time, budget, and other resources but leading to a predictable quality. Some of the issues involved could be taught well in classrooms. For others, even project-based instruction provided only a weak proxy for training/learning on the job. Team issues notably show a very different face in educational settings than in the field.

Various process models and organizational recommendations have been proposed since. Some of them find an easy entry into classrooms; others cannot realistically be used in student projects. Experience brought into the classroom by practitioners will lead at least to credibility. But students must also gain their own experience. They must learn how to accommodate constraints such as limited budgets, deadlines and imperfect facilities, how to work with professionals in other disciplines who are also vital parts of a project, and must understand the importance of communication throughout a software life-cycle as a whole. This includes communication with their peers, the other practitioners and managers on their project, and the stakeholders who often have distinctly different backgrounds and concerns.

Providing this kind of experience is especially challenging today due to the many advances in technology - advances that affect both what we teach and how we teach it. Consequently, CSEE&T 2014 focuses on teaching collaboration, communication, teaming and other skills needed by software engineering practitioners in today's context. Innovative approaches are particularly welcome.

Topics of Interest

Quality submissions covering curriculum development, empirical studies, personal or institutional experience, conceptual or theoretical work are particularly invited. The list below indicates areas in the focus of CSEE&T 2014. Submissions on additional topics consistent with the central themes of the conference are also welcome.

- team development and project management (TPM);
- reading skills (RDS);
- assessment (ASM);
- the web as object or as tool (WOT);
- communication with clients, peers, etc. (CCP);
- methodological aspects of software engineering education (MAS);
- social and cultural issues (SCI);
- open source in education (OSE);
- cooperation between industry and academia (CIA);
- domain engineering (DOM);
- global and distributed software engineering (GDS);
- continuous education to cope with technological change (CED);
- others (OTH).

Format and Submission Procedures

For 2014 CSEE&T will continue to use the "6 x 9" single column format for its proceedings. All submissions must conform to this format, and must be within the page lengths specified below for the class of submission. The requirements for this format, along with an MS Word Template and a Latex style file for it, and instructions for the production of camera-ready copy, will be provided on the web-site.

Papers must be submitted electronically through EasyChair at https://www.easychair.org/conferences/?conf=cseet2014.
Guidelines

All submissions should be original and should not have been published previously or currently be under consideration for publication elsewhere. Prior to preparing papers for submission, potential authors should read the CSEE&T Researchers Guide, found at http://conferences.computer.org/cseet/CSEETResearchGuide.pdf.

Preference will be given to submissions that either describe experiences and/or provide sound scientific data, as compared with ones that simply present untested ideas or that deal with well-established approaches which have been thoroughly covered in previous conferences. At the same time, though, "vision" papers are welcome if they present sound argumentation, based on solid references, concerning provocative issues.

Academic Research Papers (ARP, 10 pages maximum)

Authors are invited to submit papers describing original academic research in relevant areas of Software Engineering education and training. Papers presenting actual research results, or in-depth analysis of experience with delivering courses, or describing theoretical or empirical research, new techniques and tools, novel interpretation and in-depth case studies, are all welcome.

Research papers will be evaluated based on originality, technical quality and relevance to the field of software engineering education. They should clearly relate the work described to the relevant literature and provide an adequate evaluation.

With each accepted paper at least one (co-)author has to register as delegate and present the paper at the conference.

Short Papers (SP, 5 pages maximum)

Short paper submissions that address software engineering education and training topics are also invited. They are intended particularly for reports of less substantial work, or of work that is still in progress (such as experience with a particular educational tool or support environment), or they may discuss a promising idea at an early stage, or an idea that may lack complete evaluation. Even so, it is important that short papers relate the work described to the relevant literature and attempt to evaluate it as far as possible. Conclusions should focus on aspects interesting for others working in related areas.

With each accepted paper at least one (co-)author has to register as delegate and present the paper at the conference. Presentations should focus on triggering discussions for the benefit of both, the author(s) and potential adopters of the concept presented.

Industrial Training Experience Reports (TER, 6 pages maximum)

Reports from industry of their experience with delivering software engineering training are particularly invited. It is recognized that many of those engaged in industrial training may not be accustomed to writing conventional academic papers about their experiences, but may still have valuable lessons to pass on. This category of submission is intended specifically for such authors, and while they are encouraged to identify points where their work links to established literature or practice, they are not required to include formal literature reviews in these reports. Nevertheless, authors should provide a fair evaluation of the experience obtained when using the proposed approach.

With each accepted paper at least one (co-)author has to register as delegate and present the paper at the conference.

Highly Collaborative Workshops (HCW, 3 pages maximum)

It is intended that the conference will include a number of open workshops, each of 3 hours duration. The workshops enable groups of common interest to exchange experiences and viewpoints in a focused manner.

Workshop organizers should have a strategy for attracting attendance (and stimulate for submissions) based on objective criteria, for example, through a short refereed position paper. Other approaches are permitted as long as they are clearly specified in the workshop's call for participation. Workshop organizers are responsible for authoring a call for participation and for advertising their workshops in appropriate places to attract attendees.

The workshop proposal (not more than 3 pages) should include the following:

- Workshop title, objectives
- Relevance of the workshop to the conference
- Key organizer's name, affiliation and a brief biography, plus the names, affiliations and brief biographies of those who will assist the organizer in the organization and conduct of the workshop (typically 1 to 4 such assistants should be sufficient)
- Strategy for publication of the workshop and expected number of participants
- Details of any requests for pre-workshop input (e.g. position papers) and how such will be moderated and used
- Workshop activities and format
- Any formal workshop outputs
- How the success will be judged

Organizers of the accepted workshops will be required to submit a paper indicating the theme, format and activities of the workshop plus any appropriate background information. This along with any accepted position papers will be included in the Proceedings of the Conference.

The total page length devoted to the workshop in the proceedings will be limited to 25 pages. All attendees at a workshop, including the organizer for the workshop plus any attending assistants, must be registered conference delegates.

**Tutorials and Practice and Methods Presentations (TPM, 3 pages maximum)**

We invite proposals for Practice and Methods Presentations, and for Tutorials. These should have practical appeal to the SE education and training community, and should enable participants to learn more about a topic relevant to one of the conference themes. It is expected that Practice and Methods Presentations should occur within 30 to 90 minute time slots, and that Tutorials will be within a 60 to 180 minute time slot.

Such a proposal should be submitted as a paper, and should detail the topic and objectives for the session, indicating how it is expected to meet the needs of the conference audience. It should also include:

- brief biographies of the presenter(s) and their affiliations;
- the format of the session and the proposed activities, along with anticipated time requirements;
- details of any requests for pre-event input from potential attendees (e.g. questions, responses to short questionnaires); and
- if appropriate, details of any proposed post-event activities or support.

The submission for a Practice and Methods Presentations and for a Tutorial should not exceed 3 pages, and the submissions for accepted sessions will appear in the proceedings. Presenters for these events are required to register as delegates for the conference.

**Panel Sessions (PAS, 5 pages maximum)**

In general, panel sessions allow the audience to interact with panel members to provide an engaging, informative and entertaining discussion of a timely topic from multiple perspectives. A panel proposal should introduce the moderator, list potential positions, and detail the topic and objectives for the session, indicating how it is expected to meet the needs of the conference audience. It should also include brief biographies and position statements from each of the proposed panelists, and a brief biography of the proposed moderator.

The total submission for a panel session should not exceed 5 pages, and a description of accepted panels will appear in the proceedings. The moderator and each of the panelists for an accepted panel session are required to register as delegates and to contribute to the panel session at the conference.

**Important Dates** (for highly collaborative workshops):
Submission deadline: **Nov. 11, 2013**
Notification of reviewing decisions: **Nov. 25, 2013**

**Important Dates** (for all other types of submission):
Submission deadline: **Dec. 9, 2013**
Notification of reviewing decisions: **Jan. 24, 2014**
All camera-ready versions due: **Feb. 14, 2014**