

## Call for Contributions

### Submission:

**1. Inform the Chair:** with the Title of your Contribution

**2. Submission URL:**

<https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=ICSEA+2017+Special>

Please select Track Preference as **PNGSE**

Special track

## **PNGSE: Preparing the Next Generation of Software Engineers**

### **Chair and Coordinator**

Dr. Stephen Clyde, Utah State University, USA

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along with

**ICSEA 2017**, The Twelfth International Conference on Software Engineering Advances

October 8 - 12, 2017 - Athens, Greece

<http://www.iaria.org/conferences2017/ICSEA17.html>

The U.S. Department of Labor's most recent Occupational Outlook reported that there were over 2.1 million open jobs in 2014, in just four of the software-engineering related categories: Software Developer, Computer Systems Analyst, Web Developer, and Computer Programmer. The outlook estimates that this number will grow to 2.25 million by the end of 2017 and over 2.5 million by 2024. Although there isn't an official global occupational outlook, it is reasonable to assume that the world-wide demand for software engineers is following the similar pattern.

The challenge of meeting this growing demand for software-engineering talent is twofold. First, how can education institutions scale up their programs to handle increasing enrollments? Many software-engineering programs are already experiencing dramatic increases and are struggling to adapt software-engineering curricula for larger classes. Second, how can universities or colleges work more closely with industry to better prepare the next generation of software engineers?

It is time to get creative and apply software-engineering principles to educational curricula themselves. Specifically, this track will explore how can educators modularize, encapsulate, abstract, and distribute the components of curricula more effectively to improve their openness, reuse, extensibility, agility, and scalability. It will also explore ideas for better collaboration with industry and other departments.

### **Topics include, but not limited to:**

- Creative approaches to software-engineering curricula
- Open or distributed course components
- Better modularization, encapsulation, and abstraction of software engineering courses, modules, tutorials, etc.
- Better abstractions for teaching software engineering
- Ways to integrating pedagogical cross-cutting concerns, like cloud computing, testing, and source code repositories, into CS curriculum
- Creative partnerships with industry

- Current and future talent needs in industry
- Closer integration with other fields, such as mathematics
- Other challenges in software engineering education

### **Important Datelines**

- Inform the Chair: As soon as you decided to contribute
- Submission: August 31
- Notification: September 7
- Registration: September 14
- Camera ready: September 14

*Note: These deadlines are somewhat flexible, providing arrangements are made ahead of time with the chair.*

### **Contribution Types**

- Regular papers [in the proceedings, digital library]
- Short papers (work in progress) [in the proceedings, digital library]
- Posters: two pages [in the proceedings, digital library]
- Posters: slide only [slide-deck posted on [www.iaria.org](http://www.iaria.org)]
- Presentations: slide only [slide-deck posted on [www.iaria.org](http://www.iaria.org)]
- Demos: two pages [posted on [www.iaria.org](http://www.iaria.org)]

### **Paper Format**

- See: <http://www.iaria.org/format.html>
- Before submission, please check and comply with the editorial rules: <http://www.iaria.org/editorialrules.html>

### **Publications**

- Extended versions of selected papers will be published in IARIA Journals: <http://www.iariajournals.org>
- Print proceedings will be available via Curran Associates, Inc.: <http://www.proceedings.com/9769.html>
- Articles will be archived in the free access ThinkMind Digital Library: <http://www.thinkmind.org>

### **Paper Submission**

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### **Registration**

- Each accepted paper needs at least one full registration, before the camera-ready manuscript can be included in the proceedings.
- Registration fees are available at <http://www.iaria.org/registration.html>

### **Contacts**

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