



## Call for Papers: RAISE 2016

### 5th International Workshop on Realizing Artificial Intelligence Synergies in Software Engineering

Austin, TX, USA, May 17th, 2016 (In Conjunction with ICSE 2016)

<http://promisedata.org/raise/2016>, twitter: @RAISEWorkshop

This workshop brings together academics and industrial practitioners to exchange and discuss the latest synergies arising from AI and SE techniques and practices. In SE we have to solve a wide range of increasingly complex questions that are dynamic, automated, adaptive, or large scale. In theory, AI technologies can support the development of increasingly complex SE systems (as in the case of recommendation systems), and help us to deal with the many problems inherent in requirements engineering. Conversely, in theory, SE can play a role in alleviating development costs and the development effort associated with AI tools and applications such as robotics where rigorous development and testing practices are of utmost importance. In practice, this theoretical connection between SE and AI is rarely achieved. All this begs the question:

#### *Are SE and AI researchers ignoring important insights from AI and SE?*

##### **Important Dates:**

Paper Submission: January 22, 2016

Notification: February 19, 2016

CR paper: February 26, 2016

Workshop date: May 17, 2016

##### **Workshop Organizing Committee:**

Cetin Mericli, CMU

Leandro Minku, Uni. of Birmingham

Andriy Miransky, Ryerson Uni.

Craig Statchuk, IBM Canada

Burak Turhan, Uni. of Oulu

##### **Workshop Chairs:**

Leandro Minku, Uni. of Birmingham

Andriy Miransky, Ryerson University

Burak Turhan, Uni. of Oulu

##### **Program Committee:**

Ebrahim Bagheri, Ryerson Uni., Canada

Ayse Basar Bener, Ryerson Uni., Canada

Francisco Chicano, Uni. of M'alaga, Spain

Enzo Cialini, IBM, Canada

Jane Cleland-Huang, DePaul Uni., USA

Simon Colton, Goldsmiths, London Uni.

Daniela da Cruz, Uni. of Minho, Portugal

Massimiliano Di Penta, Uni. of Sannio, Italy

Jin Guo, DePaul Uni., USA

Mark Harman, Uni. College London, UK

Rachel Harrison, Oxford Brookes Uni., UK

Jacky Keung, City Uni. of Hong Kong

Ekrem Kocaguneli, Microsoft, USA

Nazim Madhavji, Uni. Western Ontario

Barbara Russo, Uni. Bolzano, Italy

Tim Menzies, West Virginia Uni., USA

Marjan Mernik, Uni. of Maribor, Slovenia

Farid Meziane, Uni. of Salford, UK

Daniel Rodriguez, Uni. of Alcalá, Spain

Alessandra Russo, Imperial College, UK

Ayse Tosun Misirli, Istanbul Tech. Uni.

Richard Torkar, Chalmers & Uni. of

Gothenburg, Sweden

Yuming Zhou, Nanjing Uni., China

To answer this question, RAISE '16 will explore not only the application of AI techniques to SE problems but also the application of SE techniques to AI problems. We seek papers that are position statements that review current state of the art results as well as papers that look over the horizon to discover future directions. Papers may either be regular position papers that will be published in the ICSE proceedings, or they may be published as "abstract only" and be seen solely by workshop attendees, presented in brainstorming sessions and discussed in breakout groups.

##### **Topics of interest:**

Prospective participants should submit a position paper on one or more of the following perspectives.

**1. Improving SE through AI** – including but not limited to knowledge acquisition, knowledge representation, reasoning, agents, machine learning, machine-human interaction, planning and search, natural language understanding, problem solving and decision-making, understanding and automation of human cognitive tasks, AI programming languages, reasoning about uncertainty, new logics, statistical reasoning, software analytics.

**2. Applying AI to SE activities** – including but not limited to requirements engineering, design, specification, traceability, program understanding, model-driven development, testing and quality assurance, domain-specific SE, adaptive systems, software evolution.

**3. SE for AI** – including but not limited to AI programming languages, program derivation techniques in AI domains, platforms and programmability, software architectures, rapid prototyping and scripting for AI techniques, SE infrastructure for reflective and self-sustaining systems.

**4. Deployed Applications of AI or SE** – papers that describe a deployed SE application in the AI domain or an AI application in the SE domain including but not limited to robotics software development and recommendation systems in SE.

##### **Submission:**

Submit papers (PDF) to <https://www.easychair.org/conferences/?conf=raise2016>. Submissions should be 5 pages for position papers and 7 pages for full papers. People who wish to publish 'abstract only' should still submit a paper for review. Accepted papers will be published as an ICSE 2016 Workshop Proceedings in the ACM and IEEE Digital Libraries. However, the authors may choose an abstract only publication of their work. The official publication date of the workshop proceedings is the date the proceedings are made available in the ACM Digital Library. This date may be up to two weeks prior to the first day of ICSE 2016. The official publication date affects the deadline for any patent filings related to published work.

If accepted, each paper will be presented in a 15-30-minute presentation session to stimulate discussion. Submissions must not be published or under review elsewhere, and conform to formatting using ACM Formatting Guidelines (<http://2016.icse.cs.txstate.edu/formatInstr>). Submission length should not exceed the above page limits and all submissions must be in English.