PROMISE is an annual forum for researchers and practitioners to present, discuss and exchange ideas, results, expertise and experiences in construction and/or application of predictive models and data analytics in software engineering. PROMISE encourages researchers to publicly share their data in order to provide interdisciplinary research between the software engineering and data mining communities, and seek for verifiable and repeatable experiments that are useful in practice.

**TOPICS OF INTEREST:**

- **Application oriented:** prediction of cost, effort, quality, defects, business value; quantification and prediction of other intermediate or final properties of interest in software development regarding people, process or product aspects; using predictive models and data analytics in different settings, e.g. lean/agile, waterfall, distributed, community-based software development; dealing with changing environments in software engineering tasks; dealing with multiple-objectives in software engineering tasks; using predictive models and software data analytics in policy and decision-making.

- **Theory oriented:** model construction, evaluation, sharing and reusability; interdisciplinary and novel approaches to predictive modelling and data analytics that contribute to the theoretical body of knowledge in software engineering; verifying/refuting/challenging previous theory and results; combinations of predictive models and search-based software engineering; the effectiveness of human experts vs. automated models in predictions.

- **Data oriented:** data quality, sharing, and privacy; curated data sets made available for the community to use; ethical issues related to data collection and sharing; metrics; tools and frameworks to support researchers and practitioners to collect data and construct models to share/repeat experiments and results.

- **Validity oriented:** replication and repeatability of previous work using predictive modelling and data analytics in software engineering; assessment of measurement metrics for reporting the performance of predictive models; evaluation of predictive models with industrial collaborators;

**KINDS OF PAPERS:**

We invite theory and empirical studies on the topics of interest (e.g. case studies, meta-analysis, replications, experiments, simulations, surveys etc.), as well as industrial experience reports detailing the application of predictive modelling and data analytics in industrial settings. Both positive and negative results are welcome, though negative results should still be based on rigorous research and provide details on lessons learned. It is encouraged, but not mandatory, that conference attendees contribute the data used in their analysis on-line. Submissions can be of the following kinds:

- Full papers (oral presentation): papers with novel and complete results.
- Short papers (oral presentation): papers to disseminate on-going work and preliminary results for early feedback, or vision papers about the future of predictive modelling and data analytics in software engineering.

**SUBMISSIONS:**

Submissions must conform to the ACM SIG proceedings templates ([https://www.acm.org/publications/proceedings-template](https://www.acm.org/publications/proceedings-template)), and within 10(4) pages for full(short) papers, including references. Papers should be submitted via EasyChair: [http://www.easychair.org/conferences/?conf=promise2018](http://www.easychair.org/conferences/?conf=promise2018). Submissions should not be published or under review elsewhere while being considered.

Accepted papers will be published in the ACM Digital Library within its International Conference Proceedings Series and will be available electronically via the ACM DL.

**JOURNAL SPECIAL SECTION:**

Following the conference, the authors of the best papers will be invited for consideration in a special issue of the Empirical Software Engineering journal.