We invite industrial, government, and academic organizations to submit proposals to organize a Data Challenge for the 2018 IEEE International Conference on Big Data (IEEE Big Data 2018, (http://cci.drexel.edu/bigdata/bigdata2018/index.html) . Data Challenges are analytics and programming contests based on datasets released by the organizations sponsoring the competitions. These contests will run for several months, with winners announced in the IEEE Big Data 2018 in December 10-13, 2018.

The IEEE Big Data conference series started in 2013 has established itself as the top tier research conference in Big Data.

- The first conference IEEE Big Data 2013 had more than 400 registered participants from 40 countries (http://cci.drexel.edu/bigdata/bigdata2013/) and the regular paper acceptance rate is 17.0%.
- The IEEE Big Data 2017 (http://cci.drexel.edu/bigdata/bigdata2017/, regular paper acceptance rate: 17.8%) was held in Boston, MA, Dec 11-14, 2017 with close to 1000 registered participants from 50 countries.

Strong proposals will release interesting and novel datasets to the participants and propose tasks that are challenging, yet achievable within the expected timeline. To encourage broad participation in the challenge competition, tasks and data should be made publicly accessible where possible.

We will consider topics from (but not limited to) the following big data application domains:

- Mobility
- Health and wellness
- Finance
- Advanced manufacturing
- Retail and e-commerce
- Smart City and Community
- Blockchain Technology
- Transportation and autonomous driving
The Challenges involve a released dataset and a well-defined problem with clear evaluation metrics. The challenges run on a data competition platform (e.g., Kaggle) that maintains a leaderboard for the participants. Final winners are selected based on their standing on the leaderboard, and a 6-page report describing their algorithms and results. There will be a workshop in the IEEE BigData 2018 conference in which the invited teams will be able to present their solution.

**Tentative Competition Timeline.**

Step 1 - Solicitation of big data problems/topics, March 20, 2018  
Step 2 - Proposal evaluation and selection of topics/problems, April 05, 2018  
Step 3 - Data Release, Platform setup and solicitation of challenge participants, April 20, 2018  
Step 4 - Deadline for contest teams to submit letter of intent, May 31, 2018  
Step 5 - Deadline for contest teams to submit final report and solutions, November 10, 2018  
Step 6 - Announcement of winning teams, Nov 20, 2018

**Data Challenge Proposal Format**

Proposals should answer the following questions:

- Who are the organizers? Provide the names, affiliations, contact information, and brief bio of the organizers.
- Which sector does the proposed Data Challenge belong to?
- What is the dataset to be released? If there are privacy concerns regarding the data, we advise that the organizers first seek clearance from the legal department of their organization regarding the dataset release.
- What prizes will be offered? Note that cash prizes will be shared between competitors and BigData, to defray the expenses of hosting demonstrations of the finalists’ submissions at BigData.
- Do you require source code with submissions?

**Challenge Specific Questions:**

- What are the task and the evaluation metrics?
• What competition infrastructure will be used? Our default hosting platform is Kaggle, which may impose fees to be borne by Challenge organizers. If you prefer to host it on your own infrastructure, specify the reasons and the resources you can commit for running the competition.


2018 IEEE Big Data Cup Co-Chairs
Mohammad Al Hasan, Associate Professor, Indiana University Purdue University Indianapolis (alhasan@iupui.edu)
Yicheng Tu, Associate Professor, University of South Florida (tuy@mail.usf.edu)