



INSTITUTE OF
**INDUSTRIAL
& SYSTEMS**
ENGINEERS

DATA ANALYTICS & INFORMATION SYSTEMS DIVISION

Data, Analytics & Information Systems

June 2018 Newsletter

President's Message

Dear IISE Data Analytics & Information Systems (DAIS) Division Members,



It is my greatest pleasure to provide you a quick update regarding the activities that the DAIS division conducted in 2017-2018, recent changes in leadership, and our exciting plans for 2018-2019.

From March 2018, the CIS (Computer and Information Systems) division has a new name of DAIS to embrace both public and community interests in "Data Analytics" and represent what our members really do in the new era. This name change has been unanimously approved by the TVP Board and IISE Board. Also, our new DAIS division had a strong showing at the 2018 Industrial & Systems Engineering Research Conference (ISERC) held at the Loews Royal Pacific Resort, in Orlando FL, with 79 presentations organized in 24 sessions. The interest in the presentations organized by the DAIS track at the annual conference continues to grow, which is a testament to the hard work of our board members and to your support and participation in this event! I would like to thank track co-chairs, Changqing Cheng, Xin Chen and Cliff Scott-Williams, for their excellent work and dedicated service to organize the 2018 DAIS track.

The key activities of the DAIS division for 2017-2018 include:

- * DAIS Best Student Paper Competition
- * DAIS Best Track Paper Competition
- * DAIS Mobile App Competition
- * DAIS Town Hall meeting
- * DAIS Webinar Series (Winter and Spring)

The activities listed above could not happen without the committed service of our division board members. Please join me in welcoming our new president-elect, Andrew Yu from University of Tennessee, and four new board directors, Chen Kan from University of Texas Arlington, Ying Lin from University of Houston, Sinan Onal from Southern Illinois University, and Na Zou from Texas A & M. For those of you interested in joining our active DAIS Board (the full list of current board members is available on the [DAIS website](#), the Call for Nominations for next year's DAIS board positions will be out in early 2019, and we strongly encourage you to apply. We are looking for leaders both in industry and academia to participate on the board.

On behalf of the DAIS board, I would like to extend our sincere appreciation to the exiting board members, John Usher and Bimal Nepal, for their dedicated service to our division. Special thanks are also due to David Porter, Immediate Past President of the DAIS division, for his strong leadership last year and continued active service this year. I would like to remind you that 2019 IISE Conference & Expo will be held in May 18-21, at the Rosen Shingle Creek Hotel in Orlando FL. We cordially invite you to submit an abstract and a paper (optional), and to present your work in the DAIS-sponsored tracks. Best wishes to you all in your research, teaching, and business.

Have a great summer 2018, and an even more prosperous 2019!

Sincerely,
Hui Yang
CIS Division President, 2017-2018



Computer and Information Systems track is now Data Analytics and Information Systems

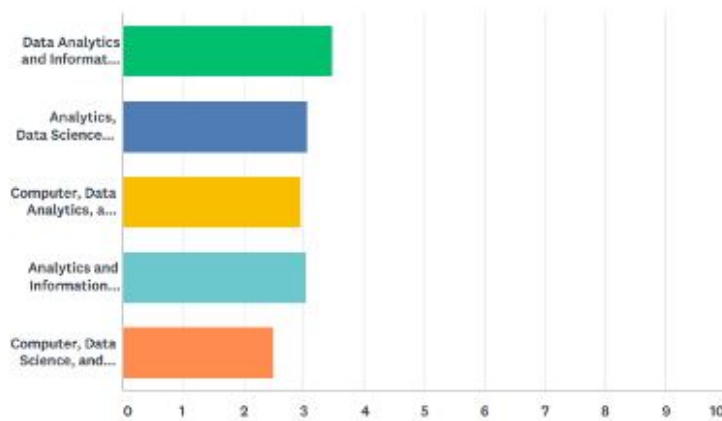
In March 2018, the CIS (Computer and Information Systems) division has been changed to Data Analytics and Information Systems (DAIS) to embrace the wide applications of data analytics.

A major motivation for the name change was the feedback from many CIS track members who suggested that data analytics is increasingly becoming a central topic in the IISE CIS community through their interactions with the track leadership. The CIS track board reached consensus that the name does affect members' choice of the track when joining IISE through a series of discussions.

The current name of CIS is a collection of keywords that reflect what this community does. With the shift of public and community interests, what drove the pursuit of a new name was the idea of finding more appropriate keywords that better fits both public and community interests and represent what our members really do in the new era.

The CIS track in IISE 2018 received a total of 110 abstracts. Among all the submissions, 101 of them contain the keyword Data or Analytics. Evidently, data analytics or data science is a predominant research theme in the CIS community.

On Jan 5, 2018, the CIS board voted in favor of the name change to be more inclusive on "Data Analytics". On Feb 22, 2018, a survey was distributed to the CIS community to survey the name change and collect inputs from all the CIS members.



	5	4	3	2	1	TOTAL	SCORE
Data Analytics and Information Systems	23.08% 18	33.33% 26	20.51% 16	14.10% 11	8.97% 7	78	3.47
Analytics, Data Science, and Information Systems	21.79% 17	14.10% 11	29.49% 23	17.95% 14	16.67% 13	78	3.06
Computer, Data Analytics, and Information Systems	20.51% 16	19.23% 15	11.54% 9	30.77% 24	17.95% 14	78	2.94
Analytics and Information Systems	20.51% 16	19.23% 15	24.36% 19	15.38% 12	20.51% 16	78	3.04
Computer, Data Science, and Information Systems	14.10% 11	14.10% 11	14.10% 11	21.79% 17	35.90% 28	78	2.49

The survey results of name change from the CIS community (5: most favorite, 1: least favorite) Based on the survey results, meetings and discussions, the DAIS board and IISE TVP board has unanimously approved on the new name "Data Analytics and Information Systems".

The name change is expected to bring numerous benefits to all members of Data Analytics and Information Systems track. Leading technological innovations and scientific research in data analytics and information systems, nurturing interdisciplinary collaboration opportunities, and increasing the community diversity by attracting more members from industries are some of the expected benefits of the name change.

Congratulations to the Winners of 2018 IISE DAIS Mobile App Competition!

The 6th annual mobile app competition was held on Sunday May 20th at the 2018 IISE Annual Conference in Orlando, Florida. "ReBox Smartphone App", "Smart Cart Shopping Optimizer (SCHO)", and "Speak For Myself® (SFM)" applications developed by students from the State University of New York at Binghamton and University of Tennessee, Knoxville had been selected as the three finalists of this year.

After the finalists demonstrated their applications, the panel of judges selected "Speak For Myself® (SFM)" authored by Nikhil Jagirdar and Pradeep Velur Rajashekar from university of University of Tennessee, Knoxville was selected as the winner. Speak For Myself® (SFM) is a speech synthesis is an easy to use comprehensive tool for patients who are unable to verbalize their needs at the bedside to communicate their needs and wellbeing with healthcare providers.

The winners received the cash prize and award certificates during the DAIS Town Hall meeting. The cash prize was sponsored by IBM and anonymous donors this year.

Access world-class training, conferences and recruitment opportunities with significant savings through IISE Corporate Partnership.



2018 IISE DAIS Track Best Student Paper Award

The best student paper competition was held on Sunday May 20th 2018 at 8:00 AM. Five judges reviewed and selected the best student paper this year. Congratulations to Haluk Damgacioglu from the Department of Industrial Engineering at University of Miami on best student paper award. The paper titled "MR2: A Two-stage Feature Selection Algorithm in High-throughput Methylation Data for Max-relevance and Min-redundancy" was co-authored by Dr. Nurcin Celik also from the Department of Industrial Engineering at University of Miami. The award winners received a certificate at the 2018 IISE Annual Conference and Expo, and recognized at the DAIS Town Hall meeting.

The winner was selected from three finalists. The two runner ups were "ResU-Net: Residual Convolutional Neural Network for Prostate MRI Segmentation," authored by Maria Baldeon-Calisto and Susana Lai-Yuen from University of South Florida and "Improving Suppression to Reduce Disclosure Risk and Enhance Data Utility," authored by Marmar Orooji and Gerald M. Knapp from Louisiana State University.



Are you connected?

[IISE Connect](#) is a forum for IISE members to directly connect, collaborate and engage with active members. This platform enables you to communicate online, empowering you to have better access to your member benefits.

2018 IISE DAIS Track Best Paper Award

The DAIS track received many excellent papers this year, and four judges selected the three finalists through a double-blind review process. Our congratulations go to Wenjin Tao, Ze-Hao Lai, and Ming C. Leu from Missouri University of Science and Technology. Their paper, titled "American Sign Language Alphabet Recognition Using Leap Motion Controller" was selected to receive the 2018 DAIS tack best paper award.

The two runner ups papers were "Multi-dimensional Lévy Processes for Multiple Dependent Degradation Processes in Lifetime Analysis" authored by Yu Shi, Yin Shu, and Qianmei Feng from University of Houston and Corning Incorporated as well as "A Dynamic Modelling Framework for Human Hand Gesture Task Recognition" authored by Sara Masoud, Bijoy Chowdhury, Young-Jun Son, Chieri Kubota, and Russell Tronstad from University of Arizona and Ohio State University.

The award winners received a certificate at the DAIS track Town Hall meeting at 2018 IISE Annual Conference and Expo on Sunday, May 20th 2018.

