



**2017/2018 Division & Class Report
to the
ACerS Board of Directors**

Division/Class: Cements Division

Current Division/Class Officers: (complete as appropriate for your Division or Class)

Chair: Matthew D'Ambrosia
Chair-Elect: David Corr
Secretary: Denise Silva
Trustee: Maria Juenger

Incoming Division Officers: (complete as appropriate for your Division or Class)

Note: most Divisions change officers at the ACerS Annual Meeting in October (MS&T). If your Division changes officers at another time, please indicate when incoming officers will begin their terms: _____

Chair: David Corr
Chair-Elect: Denise Silva
Secretary: Shiho Kawashima
Trustee: Maria Juenger

Summary of Meetings and Activities Held/To Be Held (from Oct. 2017 through Oct. 2018):

The American Ceramic Society's Cements Division hosted their 9th Advances in Cement-Based Materials meeting June 11-12 at Pennsylvania State University campus in University Park, Pennsylvania.

Monday's keynote speakers included Kimberly Kurtis and Maria Juenger, kicking off the day of concurrent technical sessions. Mid-afternoon, during the Cements Division business meeting, Division Chair Matt D'Ambrosia presented Division information including ACerS supplemental funding and budget usage, and division membership growth. The National Science Foundation Program update, was followed by the live broadcast Della Roy Lecture. Jan Olek of Purdue University, Lafayette, Indiana addressed the packed auditorium during his lecture, "Green Concrete—the past, the present and the future".

Following the lecture, over 30 posters representing research were presented at the evening poster session. The evening concluded with the Elsevier-sponsored Della Roy Reception.

Tuesday began with the 3D Printing Workshop presented by Jan Olek, Reza Moini, Joseph Biernacki, and Ali Kazemian. Several sessions throughout the day included talks on Rheology and Additive Manufacturing, Smart Materials and Computational Materials Science, Alternative Cementitious Materials and Durability and Service-Life Modeling. The afternoon's closing presentations featured David Lange's session on "Concrete as Granular Fluid" and Steve Feldman's talk, "Quantifying the

performance of nuclear power plant concrete structures affected by ASR". The YouTube Research Video and poster session winners, and Brunauer Best Paper Award were also announced. This year's YouTube Research Video contest winners were Sooraj Kumar of Arizona State University for the poster entitled, "Modelling extrusion-based 3D printing of cement-based materials" and Samet Bazer of Pennsylvania State University for the poster, "Shrinkage Compensation of Concrete with MgO Expansive Agent and Petrography". Their winning videos were from among 6 entries.

The 2018 Poster winners were: Yu Song, University of Illinois at Urbana-Champaign; Karthik Pattaje S., University of Illinois at Urbana-Champaign; Kai Gong, Princeton University; Nanaissa Maiga, Center for Excellence in Airport Technology; and Juan Pablo Gevaudan, University of Colorado Boulder.

The Brunauer Best Paper Award is presented to the best refereed paper on cements published during the previous calendar year in the Bulletin or the Journal of the American Ceramic Society. Jeffrey Bullard was presented the Brunauer certificate for his contribution to the 2017 winning paper: An Ideal Solid Solution Model for C-S-H; Journal of the American Ceramic Society; (2016) authored by Jeffrey Bullard and George Scherer.

Future Planned Meetings/Activities (from Nov. 2017 – October 2018):

10th Advances in Cement Based Materials will be held June 2018 at the University of Illinois at Urbana-Champaign. Past division chair Matthew D'Ambrosia will serve as chair of the conference.

New Initiatives/Opportunities:

The Cements Division continues to engage social media to market the division and its conferences. Youtube contests have been part of the last three conferences.

Action Items for ACerS Board Consideration at October 13, 2018 meeting:

None at this time

Issues/Concerns:

None at this time.

Additional Items of Note:

The division membership numbers continue to increase; currently at 267. Attendance at conferences also has been strong in recent years, with each of the last three years having over 100 members in attendance.

Financial Statement: (Including year-end summary of expenditures from the Division's Funds)

Attached.

Submitted By: Matt D'Ambrosia