



**Business Meeting
Engineering Design Graphics Division
ASEE Annual Conference
July 27, 2021**

- I. Call to order and Introductions
- II. Secretary / Treasurer's Report
- III. Director's Reports
 - a. Membership
 - b. Programs
 - c. Publications
 - i. Editor, Paper Reviews
 - ii. Associate Editor
 - iii. Circulation Manager
 - iv. Finances
 - d. Communications
- IV. Awards
 - a. Editor's Award (presented at annual)
 - b. Distinguished Service Award (annual)
 - c. Chair Service Award (annual)
 - d. EDGD Participation Award
 - e. Travel Award (midyear and annual)
 - f. Chair's Award (midyear)
- V. Committee Reports
 - a. Bylaws
- VI. Vice Chair's Report
- VII. Chair's Report
- VIII. Old Business
- IX. New Business
- X. Adjourn

Treasury Report (Petros Katsioloudis)

ASEE Engineering Graphics Division

76th EDGD Annual Conference

June 2021

Business Checking End Balance September 30th 2020

\$30,365.45

BASS Account

Balance as of 9/30/20: \$ 17,975.54

REVENUE

ASEE's Membership Allocation Funds-Oct 2020 \$322.00

Dues Revenue YTD FY21:

Interest Revenue: \$ 16.14

Total Revenue YTD FY20 \$338.14

EXPENSE

ASEE Administrative Fee: \$ 0.00

Balance at 3/31/2021: \$ 18,314.08



Director of Membership Report

2021 ASEE Annual Conference Virtual Conference

Engineering Design Graphics Division

July 26-29, 2021

The latest membership roster shows 319 members. The previous membership report at the ASEE Annual Conference (June, 2020) reported 320 members.

Respectfully submitted,

Lei Gu
EDGD Membership Director

Report – Director of Programs

2021 ASEE Annual Conference & Exposition

July 26-29, 2021 – Virtual Online Conference

Program Chairs: Lulu Sun & Magesh Chandramouli

2022 ASEE Annual Conference & Exposition

June 26-29, 2022 – Minneapolis, Minnesota

2023 ASEE Annual Conference & Exposition

June 25-28, 2023 – Baltimore, Maryland

EDGD Midyear Conferences

Mini-Mid Year Conference -2022 (Dates to be Decided)

Site – To be Decided (TBD)

Program Chair: Diana Bairaktarova, Virginia Tech

75th Midyear Conference (Dates to be Decided)

Site – Raleigh, North Carolina

Site Chair: Kevin Sutton, North Carolina State University

Program Chair: Nolan Fahrer, North Carolina State University

76th Midyear Conference

Site – To be Decided (TBD)

Site Chair – TBD

Program Chair – TBD

If you are interested in hosting a Midyear Conference or being the program chair at a conference, please let me know.

Respectfully Submitted,



Magesh Chandramouli



2021 ASEE annual conference EDGD Program Chair's Report

2021 EDGD Annual Conference (virtual meeting)

July 26-29, 2021

The following is an EDGD program summary for the 2021 ASEE annual conference

Results:

24 Submitted

1 Rejected

6 withdrawn

3 past deadline

0 In abstract

3 In draft

14 In final

14 Ready to publish

4 Diversity related

Monday July 26, 2021

*Mon 9:00 AM to 12:00 PM
(PDT)*

MONDAY WORKSHOP: Teaching More Skills in the Same Amount of Time – Sketchtivity, an AI-Based Tutoring Platform for Free-Hand Sketching While Also Learning Spatial Visualization

Moderated by Dr. Julie S Linsey

Speakers Dr. Tracy Anne Hammond PhD Dr. Julie S Linsey Dr. Kerrie A Douglas
Dr. Vimal Kumar Viswanathan Mr. Blake Williford Dr. Julie S Linsey

Mon 1:15 PM to 2:45 PM (PDT)

Executive Committee Meeting: Engineering Design Graphics Division

Moderated by Dr. Holly K. Ault

Tuesday July 27, 2021

*Tue 11:30 AM to 1:00 PM
(PDT)*

Engineering Design Graphics Division Technical Session 1: Spatial Visualization

Moderated by Dr. Matthew Wettergreen and Dr. Tracy Anne Hammond PhD
Presentations

- **Implementation of a Nontraditional Spatial Skills Training Program
(nominated for best PIC V paper and best diversity paper)**
Dr. Maxine Fontaine (Stevens Institute of Technology) and Dr. Alexander John De Rosa (Stevens Institute of Technology)
- **Teaching Spatial Skills Online During a Global Pandemic**
Dr. Melissa C. Richards (Clarkson University), Ms. Norma L. Veurink (Michigan Technological University), and Dr. Sheryl A. Sorby (University of Cincinnati)
- **Work in Progress: Suitability of Spatial Visualization Training for Remote Learning**
Dr. Lelli Van Den Einde (University of California, San Diego), Prof. Nathan Delson (University of California at San Diego), and Elizabeth Rose Cowan (eGrove Education)

Tue 1:45 PM to 3:15 PM (PDT)

Engineering Design Graphics Division Business Meeting Engineering

Moderated by Dr. Holly K. Ault



Tue 3:30 PM to 5:00 PM (PDT)

Lessons Learned From the Pandemic: Looking Forward and Looking Back
Construction Engineering Division Moderated by Dr. John Tingerthal P.E., Dr. Kimberly Grau Talley P.E., Dr. Rachel Mosier P.E., and Mr. Norman Philipp P.E.

Wednesday July 28, 2021
Wed 8:00 AM to 9:30 AM (PDT)

Engineering Design Graphics Division Technical Session 2: VR, AR, and CAD
Moderated by Dr. Abayomi Joseph Ajayi-Majebi P.E. and Mr. Tony Glockler

- **Augmented Reality-based Graphics Application to Assist Children with Autism Spectrum Disorder**
Dr. Magesh Chandramouli (Purdue University Northwest) and Ashayla Williams (Affiliation unknown)
- **Collaboration with Nursing in Computer-aided Design of Emergency Rooms**
Prof. Robert P. Leland (Oral Roberts University) and Mrs. Rachael Valentz (Oral Roberts University)
- **Work in Progress Pilot Study: Virtual Reality for Computational Thinking Foundations and STEM Enrichment**
Dr. Katherine Levenick Shirey (EduKatey) and Dr. Magesh Chandramouli (Purdue University Northwest)

Wed 3:30 PM to 5:00 PM (PDT)

Engineering Design Graphics Division Technical Session 3: Flipped Classroom
Moderated by Snehika Pandey and Yang Victoria Shao

- **Conducting a Blended GD&T Course During the COVID-19 Pandemic: Lessons Learned**
Dr. Theodore J. Branoff (Illinois State University)
- **Doing the Backflip: Using Classroom Technology to Adapt a Flipped Class to the HyFlex Teaching Model**
Dr. Nathan John Washuta P.E. (The Citadel), Dr. Patrick Bass (The Citadel), and Dr. Emily Kate Bierman (The Citadel)
- **Student Feedback on Best Practices for Flipped Classroom Courses in a First-year CAD Course** Dr. Angela Boronyak (University of Cincinnati)
- **Work in Progress: Gamified Learning in Graphical Communications During the COVID-19 Pandemic**
Dr. Lulu Sun (Embry-Riddle Aeronautical University)

Wed 6:00 PM to 9:00 PM (PDT)

EDGD Award Banquet Engineering Design Graphics Division
Moderated by Dr. Holly K. Ault

Thursday July 29, 2021
Thu 8:00 AM to 9:30 AM (PDT)

Engineering Design Graphics Division Technical Session 4: A Potpourri of Ideas

Moderated by Dr. Abayomi Joseph Ajayi-Majebi P.E. and Dr. Rustin Webster

- **Abruptly Transitioning an In-Person Hands-on Prototyping Course to Fully Online Instruction: The Creative Tension Between Maintaining a Positive Experience and Achieving Learning Outcomes**
Mr. Adolfo Amador (Rice University) and Dr. Matthew Wettergreen (Rice University)
- **Designing the LMS Environment to Improve Solidworks Certification Exam Scores**
Prof. Greg Murray (Pittsburg State University)



- **Evaluating an Intelligent Sketching Feedback Tool for Scalable Spatial Visualization Skill Training**
Ms. Tiffany Wenting Li (University of Illinois at Urbana-Champaign), Mr. Ziang Xiao (University of Illinois at Urbana-Champaign), Dr. Molly H. Goldstein (University of Illinois at Urbana - Champaign), Prof. Michael L. Philpott PhD. (University of Illinois at Urbana - Champaign), and Dr. Brian Woodard (University of Illinois at Urbana - Champaign)
- **Understanding Factors of Engineering Student Persistence Using Predictive Modeling**
Dr. Daniel P. Kelly (Texas Tech University), Dr. Jeremy V. Ernst (Embry-Riddle Aeronautical University), Dr. Aaron C. Clark (North Carolina State University at Raleigh), and Mr. Erik Schettig (North Carolina State University at Raleigh)

*Thu 11:30 AM to 1:00 PM
(PDT)*

Teaching Engineering Graphics During COVID-19 and Beyond: Best Practices and Lessons Learned

Moderated by Dr. Lulu Sun and Dr. Magesh Chandramouli
Dr. Theodore J. Branoff Dr. Molly H Goldstein Ellyn Lester Ms. Sahithya Reddivari Dr. Jaskirat Sodhi Dr. Heidi M Steinhauer Dr. Matthew Wettergreen

Thu 1:45 PM to 3:15 PM (PDT)

DISTINGUISHED LECTURE: Innovation Is Driving Business and Education Transformation

Moderated by Dr. Katherine McConnell and Ms. Robin R Hammond
Speakers Stefan Jockusch

2021 ASEE EDGD program chairs

Lulu Sun and Magesh Chandramouli

July 14th 2021



Director of Publications Report

128th Annual Conference

Engineering Design Graphics Division – ASEE

July 26-29, 2021

Virtual Conference

We currently have 4 articles under review to add to Volume 84. Submissions have been sparse but the call for articles specifically on teaching during Covid received several submissions.

In the attached document are the numbers for institutional and individual subscriptions, and the financial report.

My thanks to Dan Kelly for keeping on track with the reviews and Judy Birchman for her design and copyediting work.

Respectfully Submitted

07/08/2021

Nancy E. Study

Director of Publications



ENGINEERING DESIGN GRAPHICS JOURNAL
2021-2022 Annual Statement of Finances
July 8, 2021
Northwestern Savings Bank, Fairview, PA 16415

| | |
|--|---------------------|
| EDG Journal, Checking Account Balance, 06/17/2020 | \$ 42,995.79 |
|--|---------------------|

Deposits

| | | |
|-----------------------|----------------|-----------------|
| Interest | 6.49 | |
| Subscription Payments | 2,267.00 | |
| | Total Deposits | 2,273.49 |

Withdrawals

| | | |
|-----------------------------|-------------------|---------------|
| Copyediting - Judy Birchman | 500.00 | |
| | Total Withdrawals | 500.00 |

| | |
|--|---------------------|
| EDG Journal, Checking Account Balance, 07/08/2021 | \$ 44,769.28 |
|--|---------------------|

Comments:

| |
|-------------------------|
| 2021-2022 Budget |
|-------------------------|

Income:

Payments from July 1, 2021 - June 30, 2022: estimate for Non-member and Institutional Subscriptions: US, Canada and Overseas - \$40.00 each

| | | |
|----------------------|-------------|--------------------|
| | \$ 3,000.00 | |
| Interest - estimated | 10.00 | |
| | Total | \$ 3,010.00 |

Costs:

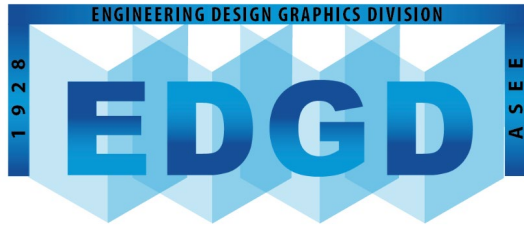
| | | |
|--|-----------|--------------------|
| Editor's Award | \$ 250.00 | |
| Reimbursements (misc.) | 250.00 | |
| Hosting of On-line Journal | --- | |
| Payments for copy editing: \$2000 estimate | 2,000.00 | |
| | Total | \$ 2,500.00 |

Comments:

EDGD JOURNAL SUBSCRIPTION DATA

| | |
|------------------------------------|-------------------|
| Active Individual Subscriptions | 350 |
| Active Institutional Subscriptions | 75 |
| Total Active Subscriptions | <u>425</u> |

Respectfully Submitted 07/08/2021
Nancy E. Study



ASEE Engineering Design Graphics Division Communications 2021 Annual Report

The EDGD Newsletter was issued 2 times so far (March and May) and shared information on latest engineering design graphics research and practices.

The EDGD website was redesigned and updated to address the most current changes in the Division. All newsletters and more content are available on our EDGD website

<https://edgd.asee.org/>

Emails with job opportunities were regularly sent to all members of the Division. The same job advertisements were also made available on the EDGD website.

The new Division logo was advertised on the website and the March newsletter and members were encouraged to use and promote the new logo at different events.

Diana Bairaktarova
EDGD Director of Communications



Vice-Chair Report
Engineering Design Graphics Division
2021 ASEE Annual Conference
July 26-28, Virtual Venue

The Nominating Committee identified a full slate of nominations for open officer positions. Many thanks to the committee members: Bob Chin, Ranjeet Agarwala, Ted Branoff, Lulu Sun, and Heidi Steinhauer.

Elections were held electronically. New officers this year include:

Dr. Steven Nozaki, Vice-Chair

Dr. Matthew Wettergreen, Secretary/Treasurer

Dr. Nancy E. Study, Director of Publications

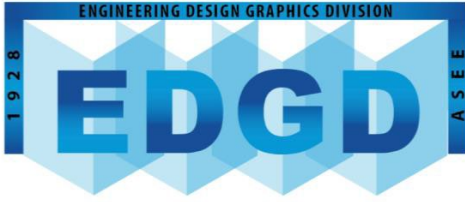
The Distinguished Service Award has been selected and will be presented at the awards banquet on Wednesday 7/28.

Many thanks to the work of the 2021 Program Chairs for the division, Lulu Sun and Magesh Chandramouli, especially in their diligence working with changing dates and formats of the conference.

Respectfully Submitted,

Jennifer McInnis

Vice-Chair



Chair's Report
Engineering Design Graphics Division
ASEE Annual Conference
July 26-29, 2021

This year has been unprecedented in the history of the division and the world at large, as well as our individual lives. We are now participating in our second virtual annual conference, and have again postponed our 75th midyear meeting until 2023. In spite of these challenges, we continue to share our research and best practices in engineering design graphics with our colleagues, and deliver high quality education to our students.

I would like to thank our division officers, and in particular our director of programs and conference program co-chairs for their tireless efforts to present a full agenda of interesting and timely sessions, working with other divisions to co-sponsor keynotes and panels, and adjust to ever-changing circumstances during these challenging times. Our director of communication has brought new life to our newsletter and website as another means to share our knowledge during this time apart.

Thanks are also due to the nominating committee and the newly elected members who have stepped up to fill positions on the board. We appreciate your willingness to serve the division in these critical roles.

On a personal note, many of you already know that I have officially retired from my position at WPI and have moved into a newly built house on the site of my childhood home in western Massachusetts. Although I will not be teaching on a regular basis, I expect to remain active in advising student projects and stay in touch with my friends and colleagues in the division.

Respectfully submitted,

Holly K. Ault

EDGD Division Chair, 2020-21

Professor Emerita, WPI

EDGD Business Meeting
June 22nd, 2020
Online

Attendees: Ted Branoff, Lulu Sun, Heidi Steinhauer, Nancy Study, Petros Katsioloudis, Nolan Fahrner, Aaron Clark, Bob Chin, Lei Gu, Jennifer McInnis, Holly Ault, Magesh Chandramouli, Diana Bairaktarova.

- I. Call to order and Introductions-Heidi
- II. Previous years minutes
 - Approved by all
- III. Secretary/Treasurer's Report

Provided by Petros Katsioloudis.

Motion to approve by Heidi. Treasurer's report was accepted.

- IV. Membership Report
by Lei Gu
 - Current member number = 320 members_previously 234-264-320.
 - 40% increase due to membership fee waiving
 - Discussed how to improve membership members by creating flyers to hand out during ASEE.
 - Holly Ault suggested sending out information via a newsletter.
 - Awards committee will send notification to members related to awards opportunities.
 - Diana and Lei will work on communicating the awards info
- V. Director of Programs Report by Magesh Chandramouli
 - 76th midyear conference-possibility for Ireland-Bob Chin will look into it.
 - Date for next year's conference in early January is a concern as many individuals will not be able to travel that early in January. Magesh will express the concern to Aaron Clark and request additional details.
 - Magesh and Lulu will Co-Chair Long Beach California conference.
- VI. Director of Publications Report
Presented from Nancy Study which reported that the publication of the Volume 83 of the Journal. We had 26 submissions and 6 articles were published.
 - There was a discussion about indexing the journal and also providing open access.
- VII. Director of Communications
Jennifer McInnis reported on communications and specifically the new EDGD website. She noted that the midyear conference webpage can be hosted on the EDGD website or on another website.
- VIII. Elections Committee
 - Holly Ault reported on the elections committee. Upon elections Diana Bairaktarova was voted as Communications Director and Jenn McInnis as Vice Chair.
 - Possibility of forming a Non-Bylaws committee

- IX. Lulu Sun reported on the Logo. Two logos made it to the top (5 and 9). A motion to have the membership vote on those two was passed. Financial report showed a 34% increase. Based on ASEE's recommendation we might have to spend funds from the BASS account.
- X. Chair Heidi Steinhauer reported:
- The division is now under PIC 5 instead of PIC 3.
 - Code of Conduct was sent to everyone from ASEE
 - All presentation recordings will be available on ASEE's website for a year.
- XI. Chair report was given by Heidi thanking everyone for their efforts to make the conference successful.
- XII. Bob Chin made a motion to adjourn. Jenn McInnis second.