Welcome/Call to Order

The division chair Justin Kile called the meeting to order at 3:15 PM EST and welcomed everyone to the Industrial Engineering Division (IED) Business Meeting. Justin asked the attendees to introduce themselves. The secretary/treasurer Raymond Smith passed around a sign-up sheet, and the following members were recorded present.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>John White</td>
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</tr>
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</table>

Justin Kile introduced the following officers for the year ending June 2019:

- **Division Chair:** Justin W. Kile
- **Program Chair:** Paul C. Lynch
- **Program Chair-Elect:** Ebisa Wollega
- **Secretary/Treasurer:** Raymond Smith III
- **Awards/Past Division Chair:** Gene Dixon*
Approval of 2018 Meeting Minutes
The program chair elect Ebisa Wollega distributed minutes from the 2018 business meeting for approval. Tish Pohl made a motion to approve the minutes, Gül Kremer seconded the motion. The minutes were approved unanimously.

Program Chair Report
Paul C. Lynch presented the following IED conference papers statistics comparing the current year to the past three years. Overall, the number of papers submitted in 2019 declined.

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Abstracts</td>
<td>15</td>
<td>36</td>
<td>19</td>
<td>27</td>
</tr>
<tr>
<td>Drafts submitted</td>
<td>9</td>
<td>24</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Draft papers rejected</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>No final submitted</td>
<td>0</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Papers transferred</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Final papers</td>
<td>9</td>
<td>21</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Diversity related</td>
<td>2</td>
<td>7</td>
<td>2</td>
<td>-</td>
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<tr>
<td>Posters</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Panels</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Reviewer pool</td>
<td>31</td>
<td>60</td>
<td>63</td>
<td>-</td>
</tr>
<tr>
<td>Reviewers assigned</td>
<td>17</td>
<td>51</td>
<td>36</td>
<td>-</td>
</tr>
</tbody>
</table>

IED Best Paper Award

IED Best Paper Award Runner-Up
“Monetizing Life May Be the Ethical Thing to Do”, Alejandro Salado (Virginia Tech) and Andrew Katz (Purdue University).

New IE Educator Outstanding Paper Award
“An introduction to the CLICK Approach: Leveraging Virtual Reality to Integrate the Industrial Engineering Curriculum”, Omar Ashour (Penn State Behrend), Christian Emmanuel Lopez (Penn State University), and Conrad Tucker (Penn State University).

Distinguished Service Award
Letitia Pohl, University of Arkansas.
Financial Report
Raymond Smith presented the BASS summary for 2019, comparing against the 2018 account summary. The summary is based solely on the report received from ASEE for YTD, posted on March 31, 2019. Since that time the division has committed a significant amount of money toward paper awards, banquet tickets for awardees and paper award plaques. As a result, the available accounting balance will be different from the figures reported below.

<table>
<thead>
<tr>
<th></th>
<th>2019 YTD</th>
<th>2018 FY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$488</td>
<td>$760</td>
</tr>
<tr>
<td>Expense</td>
<td>$126</td>
<td>$2,751</td>
</tr>
<tr>
<td>Ending balance</td>
<td>$17,258 (YTD 3/31/19)</td>
<td>$16,896 (FY 9/30/18)</td>
</tr>
</tbody>
</table>

Follow-up discussion:
Regarding the differences in reported revenue amounts, the division receives revenue monthly based on the new or renewing membership with division affiliation. Therefore, the 2019 YTD revenue (mid-year) is less than the 2018 FY revenue, as shown in the table above. Sarah Luo, our ASEE accountant, verified this practice and stated we have received revenue since the report.

Diversity Committee Delegate
Karen Bursic provided an update from the diversity committee. The following topics were discussed:
• Current topics for the committee:
  o Only 30% of the divisions submitted a diversity paper this year.
  o Need to increase more year-round activity and develop metrics to measure this activity.
  o Partnering with the engineering dean’s council may help increase visibility.
  o Need to developing constituent diversity groups.
  o Need to increase awareness of available resources.
• Question: What are the criteria for the classification of a diversity paper and how are they being identified?
  o This year’s two papers were identified by the review committee.
  o How do we know the paper meets the criteria?
    1. Deals with underrepresented groups, or
    2. Addresses different learning capabilities.
  o Further clarification may be needed on the criteria, which requires taking the question back to the diversity committee.
  o Some type of process is needed to determine which papers meet the criteria.
• The policy and letter committee has the responsibility for writing letters of support for researchers that have been harassed over their work.
• Past committee activities worked on helping the diversity community. Moving forward, diversity equity and inclusion is focused on taking things to the next level. A rubric has been posted online by the committee, and past winners will be posted as examples.

Agnieszka Miguel (outgoing PIC I chair) and Christi Patton Luks (incoming chair) arrived.
Professional Interest Council I Chair Report and Discussion

Christi Patton Luks was introduced as the incoming chair (2019-2022). She is an associate teaching professor of chemical and biochemical engineering at Missouri University of Science and Technology.

Agnieszka Miguel, the Professional Interest Council I (PIC I) chair, presented the topics below, followed by discussion with the IED members.

- **ASEE meetings code of conduct**
  - Work in progress to establish committees/policies/processes around the code of conduct.
  - A moderator’s handbook, which describes new ethics policies, is being considered. Comments welcome for what should be added.

- **ASEE finances**
  - Working to confirm account management costs (~30%)
  - RFP for Monolith replacement; presently cannot interface apps, accounting and registration (documented processes needed)
  - PIC I division BASS account total $125,994 (YTD 3/31/19)
  - Require a plan from each division by September 15th on how to spend their money (BASS account) toward member services, or enhanced programming. Money will be deposited October 1st based on March 31st membership ($1 per member).

- **ASEE PIC I division membership**
  - 2019 – 4,231 (3/31/19); Total ASEE individual members 10,253
  - 2018 – 4,204
  - 2017 – 4,310
  - 2016 – 4,451

- **PIC reorganization**
  - 5 PICs presently exist but they are very unequal.
  - 3 reorganization scenarios have been drafted.
  - Deadline of September 15th to provide feedback to the board (Survey Monkey may be used).
  - Objective is to have discipline and interest organized into one PIC.
  - Need to have discussion and feedback from each division.
  - Ranking will provide a general feeling about the preference.

Follow-up discussion:
- Kim Needy expressed the need for collaboration across the PIC.

**New Business**

*BASS Spending Account Statements (July 15)*

Divisions have been asked to prepare a statement, which consists of a couple of paragraphs, regarding their BASS account funds.

- **Content:**
  - BASS account funding sources
  - Activities supported with BASS account funds
  - The target value for a continuing balance in BASS account

- It is not about spending the money frivolously, unnecessarily, or quickly.
It is about communication with members and transparency (it’s their dues!).

Follow-up discussion:
- Group discussion on the “what-if” ideas:
  - Perhaps we could establish a student paper travel grant award, however, no submissions have been received.
  - Beth Cudney suggested a workshop idea for team building for students.
  - Tish Pohl suggested a workshop on engineering research.
  - Perhaps we could increase the paper award from $250 up to $500.
  - Perhaps provide a travel grant focused on new member recruitment.
- Paul C. Lynch will need to draft a statement.

**PIC Reorganization**
- Current state:
  - We currently have a total of 53 divisions/constituent committees.
  - There are 22 divisions associated with what we have termed “disciplines” in most scenarios.
  - The names of divisions used in the different reporting systems need to be standardized.
  - Multiple divisions are listed in different ways between the systems (financial, membership, and annual meeting).
  - There are many options that continue with the 5 PIC framework.
  - Investigated one option with the 6 PIC framework, but quickly rejected that idea.
  - The current PICs are out of balance based on divisions, membership, funds, published papers, and technical sessions.
- Issues to be addressed with PIC organization:
  - There is a clear imbalance in all metrics based on the current structure.
  - The current structure has not been reviewed in recent history.
  - There are continuous complaints about equity in best paper selection processes.
  - There are requests to rearrange some PICs based on interest/subject matter divisions.
  - There are multiple new divisions being created and the placement of those is unclear.
  - PICs I and II have a prestige factor because they represent historical, core engineering disciplines.
- Philosophical Questions:
  - Should the PICs be arranged based on some logical order based on subject matter or special interest?
  - Should the PICs strive to provide some sense of balance or equity? If so, what is the measure of equity?
  - Do divisions that have activities external to the annual conference relationships (through conferences, projects, etc…) need to be in the same PIC?
- Our Action:
  - Please create a process to gather feedback for your division.
  - Please respond as a division using your own process.
  - The chair of each division will be asked to respond on behalf of the division.
Please respond by September 15, 2019.
Rank the three scenarios.

Follow-up discussion:
- Need to generate one letter from the division on the preference for the PIC reorganization
- General concern expressed over the various divisions with overlap across them
- Justin Kile expressed concern over potentially missing membership
- Kim Needy mentioned an example may be the engineering economy division

**Installation of New Officers**
Justin Kile led the installation. Because the bylaws provide for orderly transition of officers, only a new secretary/treasurer was needed to be elected. When nominations were solicited, Lisa Bosman expressed interest in the position. Lisa is an assistant professor of industrial engineering at Purdue University. She completed her dissertation research on solar performance and engineering education. Justin Kile made the nomination. Eric Specking made a motion to approve, Kim Needy seconded the motion. Lisa was elected by acclamation.

Board of Directors:
- Leonardo Bedoya-Valencia replaces Jane Frasier, who will soon be retiring.
- Jessica (Matson) Oswalt has agreed to continue as a director.

The membership accepted the slate of directors as indicated below. The IED officers for the coming year will now be:

- **Division Chair:** Paul C. Lynch
- **Program Chair:** Ebisa Wollega
- **Program Chair-Elect:** Raymond Smith III
- **Secretary/Treasurer:** Lisa Bosman
- **Awards/Past Division Chair:** Justin Kile
- **Directors:**
  - Rick Olson (2020)*
  - Tish Pohl (2020)*
  - Jessica (Matson) Oswalt (2021)*
  - Leonardo Bedoya-Valencia (2021)
- **Webmaster:** Lawrence Whitman*
- **Diversity Committee Delegate:** Karen Bursic*

*continued in position
New Business

Ebisa Wollega provided the status on the call for papers and the theme. Details below:

2019 Call for Papers
The 127th ASEE conference will be held in Montréal, Québec, Canada, June 21-24, 2020. Abstract submission opens early September; the deadline for submitting abstracts is October 14, 2019. The division will be accepting papers for work-in-progress. Workshop, Panel and Distinguished Lecture requests will also open early September. The program chair Ebisa Wollega proposed the theme of the IED paper to address artificial intelligence and industrial engineering education. The meeting attendees approved the proposal.

Follow-up discussion:
- Paul C. Lynch expressed concern regarding how we can increase the number of papers.
- Tish Pohl mentioned that the paper length is not restrictive.
- Gül Kremer stated that quality versus quantity is of significant concern.
- Paul C. Lynch mentioned that the paper reviews vary greatly.
- Kim Needy expressed concern that negative feedback on the abstracts may be discouraging authors from submitting completed papers. Perhaps the feedback can be adjusted to be more encouraging.
- Tish Pohl mentioned that a problem observed in the past is submissions on research were frequently devoid of engineering education.
- Gül Kremer questioned whether the paper count is insufficient to attract affiliation with the division and whether there should be opportunities offered beyond just the paper.
- Kim Needy expressed concern about the competing publishing requirements where historically work was later expanded and submitted at the journal level.
- Kim Needy suggested that ERM should become their own PIC.

Adjournment
Kim Needy made a motion to adjourn. Eric Specking seconded the motion. All were in favor of adjourning. Justin Kile adjourned the meeting at 4:47 PM EST.