

SWOT (Strengths/Weaknesses/Opportunities/Threats) Analysis

- All Divisions and Research Committees to complete a SWOT analysis
 - Opportunity to reflect on the challenges and opportunities for each group
 - Helps set strategy for each group
 - TEC Council will collect data and identify top 5 actions from weaknesses and threats
 - Complete SWOT analysis by Friday, September 30
- TEC Council completed a SWOT analysis at July strategy meeting
 - Identified areas for the TEC Council to focus for improvements
 - Critical the strategy of TEC
 - TEC results will be shared with actions from division and research committee SWOT analysis

CIE SWOT Analysis

| | | Helpful | Harmful |
|----------|--|--|---------|
| Internal | <p>Strengths:</p> <ul style="list-style-type: none"> • Strong core of members who have attended for many years. • Joint symposia, panels, annual JCISE special issue. • The theme of the CIE conference in terms of computational modeling and simulation aspects of engineering is topical • Professional networking for faculty, students, and researchers working in government, and industry; • Student initiatives such as the poster session and hackathon. • Mechanistic science & innovation > Scale • Design, Engineering, Creativity & Innovation • Pioneers and thinking forward • Strong collaboration with DED Division • CIE focus areas of crucial importance to industry | <p>Weaknesses:</p> <ul style="list-style-type: none"> • Outdated descriptions of technical areas of interest • Limited outreach activity outside of yearly conference • Unknown visibility within greater ASME • Update some Technical committees or add new ones on emerging topics (e.g., machine learning in Design and Manufacturing) • Refinement needed in the titles and descriptions of conference symposium tracks; • Marketing / advertising strategy is limited to an email list • Need to raise awareness about the conference; • Website navigation and review management tool need improvement • Limited financial incentives (student poster awards, honorariums, etc.) • Student poster session needs rebranding • Need for continued hybrid or Physical-Virtual representation/presentation/communication • Low industry participation in conference | |
| | <p>Opportunities:</p> <ul style="list-style-type: none"> • Widespread industry/government/academic interest in machine learning. • Distinguishing CIE/ identifying and celebrating a niche • Joint-TC symposia on “hot” topics such as digital twins. • Improved advertising, especially to early-career faculty and graduate students active in the ML arena. • Advertising initiative outside North America | <p>Threats:</p> | |