

2022 國研盃智慧機械競賽
(ASME Taiwan SPDC) 簡章



壹、前言：

「國研盃智慧機械競賽」係由國家實驗研究院台灣儀器科技研究中心（儀科中心）協同美國機械工程師學會（ASME）台灣分會舉辦的國內學生競賽（SPDC）。美國機械工程師學會（ASME）成立於 1880 年，學會為一非營利事業組織，致力於促進工程科學界的技術合作、知識共享以及技能發展，並提升工程師在學會中的重要性。

貳、競賽宗旨：

1. 提供培養專業機械工程師、領導人的技術平台。
2. 創造國際間工程技術分享與交流。
3. 提供參賽學生認識美國機械工程師學會的機會。

參、辦理單位：

主辦單位：美國機械工程師學會 台灣分會
國家實驗研究院台灣儀器科技研究中心
承辦單位：美國機械工程師學會 中山大學學生分會
美國機械工程師學會 臺灣大學學生分會
美國機械工程師學會 交通大學學生分會
美國機械工程師學會 清華大學學生分會

肆、競賽時間與地點：

時間：2022 年 3 月 19 日(星期六) (詳細時程安排會公布於 FB 粉絲專頁上)
地點：中山大學 機電大樓 1F
（如遇不可抗拒之因素，主辦單位得更改競賽時間與地點）

主辦單位提供參賽者午餐，請於報名時一併填寫欲訂購的份數。

注意：我們將於 3/12 (六) 當天開放設計競賽隊伍可以到現場進行測試及調整，詳細開放時間會再另外公布。

伍、競賽項目：

SPDC 國內賽包含二種項目：

1. Student Design Competition (SDC) 學生設計競賽：

2022 年 SDC 設計競賽題目為 H2Go Revisited

請依照題目設計出作品進行參賽。詳細規則請參照附錄一或 ASME 官方網站。

注意：依 ASME 過去數年慣例，競賽規則會隨參賽者反應而時有修訂，請參賽隊伍主動注意總部規則修正，並請隨時密切注意 ASME 官方的 Q&A，Q&A 之問答亦屬於比賽之規則，相關資訊可由此獲得：
<https://www.asme.org/events/competitions/student-design-competition>

2. Old Guard Oral Presentation Competition 演講競賽：

演講題目不限，機械相關即可，全程以英文演講和問答。詳細資訊請參照附錄二或 ASME 官方網站。比賽評審重點在大學生個人對機械相關議題的分析與分享能力或是個人在學期間研究成果的發表，並不是英文能力的鑑定。

陸、參賽資格：

國內大專院校全職在學學生。在職進修學生及教師不受理報名。學生設計競賽可跨院校混合組隊，每組最多 4 人。演講競賽則限以個人為單位參賽。

(學生設計競賽須有一人為 ASME 會員；演講競賽參賽者須為 ASME 會員)

柒、參賽方法：

參賽者可自行選擇欲報名參加之項目，並於國內賽之前完成作品或簡報，在國內賽當日前往比賽地點進行競賽。優勝隊伍或個人可獲得獎金以及 ASME 台灣分會所頒發的證書。

捌、競賽流程：

學生設計競賽：

競賽當天開放場地試用，正式開始前 30 分鐘停止試用比賽場地，以利主辦單位進行場地最後確認。當天會場備有準備區，參賽選手可以在準備區做最後的調整測試工作。順序將以抽籤方式決定，詳細競賽流程將於當天宣布或以行前通知方式告知。

演講競賽：

競賽現場提供電腦與投影機，參賽者僅需自備內含簡報檔之隨身碟或光碟。

玖、評分標準：

由美國機械工程師學會台灣分會邀請學業界專家組成評審團，並按照美國機械工程師學會頒佈之評分標準進行評分。各項競賽的評分準則請見附錄。

注意：參加設計競賽之隊伍，須於進行任務前向評審委員說明相關設計理念及動力裝置等 (約 3 分鐘)，再進行任務。

拾、競賽獎項與獎金：

獎項和獎金原則上依下方設定品項頒發，實際頒發獎項得因參賽隊伍數目和比賽成績狀況從缺。

一、學生設計競賽：

第一名：50,000 元

第二名：25,000 元

第三名：10,000 元

佳作：5,000 元

注意：第一名之隊伍之判定，評審委員有決定是否為從缺之最終決定權。

二、演講競賽：

第一名：10,000 元

第二名：5,000 元

拾壹、競賽規定：

本次 ASME SPDC 競賽屬於國內賽，成績優勝隊伍可獲得獎金。

拾貳、報名辦法：

報名時間：即日起至 2022 年 2 月 28 日截止。

報名方式：網路報名，詳細報名方式，詳見附錄三

保證金：一隊 1000 元整，需準時報到，並全程參與活動，在頒獎結束後，退還全額保證金 1000 元。

拾叁、聯絡資訊：

ASME 學生競賽 (SPDC) 國內賽 總召 李宗恩

email: r31680409@yahoo.com.tw

ASME 學生競賽 (SPDC) 國內賽 副召 余若甄

email: jenna04140126@gmail.com

如詢問規則相關問題請私訊粉絲專頁其他問題也可私訊粉絲專頁

「2022 ASME SPDC 台灣國內賽」

拾肆、競賽網站：

相關資訊會公布或修改在網站上，請密切注意。

ASME 官方網站網址：

[https://efests.asme.org/competitions/student-design-competition-\(sdc\)](https://efests.asme.org/competitions/student-design-competition-(sdc))

Facebook 搜尋：

2022 ASME SPDC 台灣國內賽

拾伍、注意事項：

2022 年的 ASME E-Fest Digital 競賽之參賽辦法為影片的方式參賽，於 2022 年 3 月 1 日報名結束，欲參加比賽之隊伍，需自行前往 ASME 官網報名，詳情比賽規則及影片繳交日程請參閱附錄一。

ASME 官方網站網址：

[https://efests.asme.org/competitions/student-design-competition-\(sdc\)](https://efests.asme.org/competitions/student-design-competition-(sdc))

附錄一 (本附錄僅供參考，請以 ASME 官網公布之規則為準)



**ASME Student Design Competition – 2022 Rules
H₂Go Revisited**

**ATTENTION E-FESTERS! Please read this important announcement about
ASME E-Fests® in 2021 & 2022**

ASME E-Fest Digital (March 25-26, 2022) and affiliated competitions will NOT be held in-person. They will continue to be virtual for academic year '21-'22.

ASME will be hosting a series of year-long digital events including E-Fest Careers 2021 (November 13), competition "how to" webinars and much more. Please visit <http://efests.asme.org> for more details.

ASME Student Design Competition – 2022 Rules H₂Go – Revisited

We are modifying a competition from a decade ago (2011), the basis for which revolves around a water-propelled vehicle. The interest in renewable energy applications has risen to new heights since the competition was first run. In the 2011 rules, we stated that: “Devices to convert and store this energy could be created and an untapped and readily available energy source utilized. In addition, the water itself could be stored for a variety of everyday uses.”

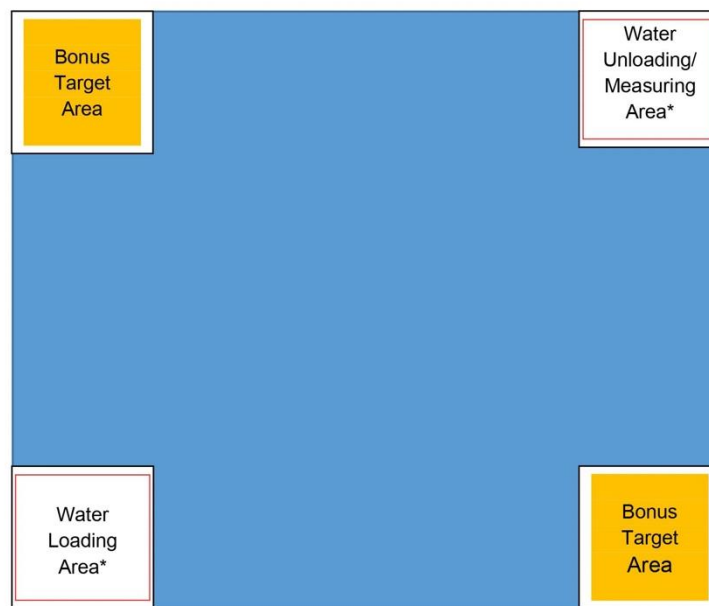
Your challenge this year is to design a scaled, proof-of-concept prototype for water energy conversion. Your prototype will propel your vehicle by converting the potential energy of water that you will manually load into your device. Using that water as the power to propel your vehicle, your goal is to transport the water and unload as much water with your remotely controlled vehicle to a water delivery area in 15 minutes. *The validation of your design is scheduled to take place over several weeks in March, prior to the E-Fest Digital on March 25-26, 2022. See below for the details and event timing.*

General Rules: team eligibility, overall design setup and constraints:

1. Students participating in the competition must be undergraduate engineering students (any engineering discipline is allowed) and must be ASME student members. There is no limit on the number of students on a team or the number of teams from a school. Each student may only participate on one team (contribute to one device) – participants from schools fielding more than one team will be asked to affirm this at the competition.
2. Teams **must provide a rigid sizing box with a top** for the device. This box must be 50 cm x 50 cm x 50 cm (internal dimensions) or smaller. Teams will be required to verify box dimensions and that their device fits within the storage box in a submission video prior to the virtual competition.
3. The competition will take place in three stages, requiring teams to submit videos to ASME: 1) testing setup, 2) description and preliminary operation, and 3) the virtual competition for actual scoring. Design modifications are allowed until the final stage.
4. Teams must construct their own demonstration field which must be a 3-meter by 3-meter space marked on the floor by tape (see Figure 1). The devices must stay within the tape during demonstration. The field will have a ½ meter x ½ meter water filling area and a similar sized water delivery area.
5. Teams must build a device propelled by energy generated from the water manually poured into the device at the start of the round. The device must be completely powered by the potential energy of the water, and no other initially stored energy (such as electrical energy, pre-loaded springs or weights, or compressed gas).
6. Devices may use a battery powered system to run all device **control** functions: steering, braking, deploying water collection systems, opening or closing valves, etc. An RC remote controller should be operated by one team member to control the movement of the device. The remote controller may have its own battery. We encourage teams to use rechargeable batteries wherever possible, but they are not required.

7. Teams will provide water and all containers to fill, capture and measure the water that is transported from the Water Loading Area to the Water Unloading Area. Water must be transported across the playing field in a vehicle which must remain on the ground until the water has been unloaded. Teams may provide a water capture container to drain the water from the vehicle when it is within the Unloading Area. Opening and closing drain valves can be done either manually or remotely. The water capture container can then be lifted and manually poured into an unaltered commercial measuring container with clear volume markings in milliliters (mL).
8. Each demonstration will begin with the device in the rigid sizing box near the Water Loading Area. One team member may remove the device and place it within the Loading Area and fill the device with any amount of water desired. Once the device leaves the Loading Area it may not be touched until it reaches the Unloading Area.

Figure 1: Playing Field
(3 m x 3 m overall size)



(*Loading, Unloading and Bonus Target areas are $\frac{1}{2} \text{ m} \times \frac{1}{2} \text{ m}$)

March 4, 2022 Deliverables: testing setup compliance and design evaluation

9. By 11:59 pm US EST March 4, registered teams must submit a video that validates the requirements of the competition: clearly verify the Playing Field and Sizing Box with dimensions, and the water collection and measurement systems by the Unloading Area.
10. The description of the device and its operation are not required at this time, as it will be part of the March 11 video.
11. Teams are also requested to submit a 2nd design validation video on March 4. This is not required, but a bonus factor based on the judges score of the design validation video will be used in the competition scoring. This 10-minute video or PowerPoint presentation with voice over should describe the team design process and should cover:
 - the design process and decisions made during the project
 - the description of the final device and its unique qualities
 - the procedures taken by the team to test during the fabrication of the device and ongoing validation and refinements in preparation for the competition
12. Teams that submit a design video will be scored from 0 to 10. This score will be incorporated into a Design Scoring Factor used to calculate the final device score for the competition as follows:

$$\text{Design Scoring Factor} = 1 + (\text{Judges Score})/100$$

March 11, 2022 Deliverable: device operation and initial performance

13. By 11:59 pm US EST March 11, registered teams that submitted an approved Competition Compliance video on March 4 will create and submit a video of their device operating on their Playing Field.
14. At the start of the video, a team member will take the device from the sizing box, and briefly explain how the device will operate.
15. The device operator will then fill the device with water and remotely drive the device to the Water Unloading Area.
16. The device must fit inside the Sizing Box when it is set in the Water Loading Area, however, it is an allowable control function to remotely alter the device size as long as it does not touch the ground outside the Loading Area boundary.
17. For this Preliminary Device testing, each team will have no more than 5 minutes after describing the device to fill the water, remotely control the device to the Water Unloading Area, and deposit some water into the collection container.
18. Teams should clearly show a timer on their video when device filling begins, and end the video showing the final elapsed five-minute time, and also show the measured water captured. The video of the timed run and the measuring of the captured water should be recorded in one continuous take, without cut-a-ways or time skips.
19. In order to qualify for the final round of the competition, teams must successfully move their device to the Unloading Area powered by water and deposit some amount of water; the measurement of water volume will only count in the final round and March 18.

March 18, 2022 Deliverable: *competition scoring round*

20. By 11:59 pm US EDT March 18, teams must operate, record and upload their video with their device performing to transport water for competition scoring. By March 17 all qualified teams will be given a unique identification sheet that they must show at the start of their performance video. This will ensure that all teams are running their final demonstration on the same day, and have the same amount of time to operate.
21. For the final demonstration, teams will have 15 minutes to transport as much water as possible from the Water Loading Area to the collection system at the Water Unloading Area. Teams can make as many trips as they wish within the 15 minutes time period.
22. The demonstration score for each trip is the amount of water (measured in mL) moved from the Water Loading Area to the Water Unloading Area and collected in the measuring container with the following score adjustments:

$$\text{Trip Score} = (\text{Design Scoring Factor}) * (\text{Return Bonus}) * (\text{Target Bonus}) * (\text{mL of Water})$$

23. Water can be manually or remotely removed from the device to a collection container. The collection container can be manually emptied into the measurement container. At all times, the device itself may not be lifted, shifted, or otherwise moved from the ground during this process.
24. The *Design Scoring Factor* was explained in #12
25. The *Return Bonus* = 2 if a team is able to remotely drive the vehicle from the Loading Area to the Unloading Area and also drive back to the Loading Area remotely using water power after removing water for scoring. Water can only be added in the Loading Area. Teams can decide to manually return their device to the Loading Area after all desired water has been moved to the collection container for measurement; the Return Bonus score = 1 when the vehicle is returned manually.
26. If the vehicle attempts to return but does not make it all the way to the Loading Area, the operator may manually place the vehicle in the Loading Area and start a new trip. The Return Bonus = 1 if this happens.
27. The *Target Bonus* = 1.25 if a team passes any part of their vehicle over either of the Bonus Target Areas (Figure 1) when going from the Loading Area to the Unloading Area. There is no extra bonus to go to both Target Areas, and there is no extra bonus to visit the Target Area again on a return trip if teams are attempting to earn the Return Bonus; the Target Bonus score = 1 if teams go straight from the Loading to the Unloading Area.
28. A team's total points for the competition will be the sum of all Trip Scores within the 15-minute time limit.
29. The top three places will be awarded prizes. Any ties will be broken based on the amount of water transported in 15 minutes – with no bonus adjustment factors.

Activity Timing for 2022 SDC E-Fest Digital Competition

The delivery dates for the activities associated with the 2022 virtual Student Design Competition are summarized below:

To be eligible to submit a Competition Compliance video, teams must have registered for the E-Fest Digital.

- (Required) Compliance with Competition requirements March 4, 2022 (11:59 p.m. US EST)
 - Teams must submit a video of their competition setup as detailed in above competition rule #9.
- (Optional) Preliminary Design Review March 4, 2022 (11:59 p.m. US EST)
 - Teams may submit a 10-minute video or PowerPoint presentation as explained in above competition rules #11 and 12.
 - While this is not required, it will earn teams a scoring bonus in the competition.

To be eligible to submit a 2nd initial performance video, teams must have received confirmation from ASME SDC that their Competition Compliance video was approved.

- (Required) Preliminary Device Performance March 11, 2022 (11:59 p.m. US EST)
 - Teams must submit a video as detailed in above competition rules #13 to 19.

To be eligible to submit the scoring performance video, teams must have received confirmation from ASME SDC that their initial performance video was approved.

- (Required) "Live" Scoring Competition March 18, 2022 (11:59 p.m. US EDT)
 - All teams will be given instructions for identifying their device and must operate their devices as detailed in above rules #20 to 29.
 - Teams will have 15 minutes to operate their device, recording and uploading their video with their final performance.

The videos submitted on March 18 will be scored by ASME SDC judges to determine the top 3 place teams. These results will be announced during the awards ceremony on March 26th (time TBA) during E-Fest Digital.

Video Submission, ASME Release Form(s) & E-Fest Digital Registration

E-Fest Digital (March 25-26, 2022) registration is required for team captains and team members. There is no fee to register for E-Fest Digital or SDC. Once your E-Fest Digital competition registration is complete, team captains and team members will be directed to a Google form to:

1. Required videos and videos based upon winning teams in subsequent elimination rounds
2. Sign an ASME Video Release Form (required by all team members and team captains)

Prizes & Winners

- 1st place - \$500
- 2nd place - \$300
- 3rd place - \$150
- SDC competition winners will be announced during E-Fest Digital on Saturday, March 26, 2022 during the awards ceremony.

Questions & SDC Q&A Forum

- Questions may be directed to sdcc@asme.org
- The SDC Q&A Forum will open in mid-September on the E-Fest website ([https://efests.asme.org/competitions/student-design-competition-\(sdcc\)](https://efests.asme.org/competitions/student-design-competition-(sdcc))). The Q&A Forum will close by February 1, 2022.



ORAL COMPETITION RULES & GUIDELINES A VIRTUAL UNDERGRADUATE COMPETITION AT THE ASME E-FEST DIGITAL 2022

SPECIAL NOTICE: ATTENTION E-FESTERS!
**Please read this important announcement about
ASME E-Fests® in 2022**

ASME E-Fest Digital (March 25-26, 2022) and affiliated competitions will NOT be held in-person. They will continue to be virtual for academic year '21-'22.

ASME will be hosting a series of year-long digital events including a E-Fest Careers 2021 (November 13), competition "how to" webinars and much more. Please visit <http://efests.asme.org> for more details.

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Section A Description of the Competition

Like all professionals, engineers must possess a well-developed ability to synthesize issues and communicate effectively to diverse audiences. Among the highlights of the ASME Engineering Festivals® (or E-Fest) is the Old Guard Oral Competition for undergraduate students. This competition is designed to emphasize the value of an ability to deliver clear, concise, and effective oral presentations, particularly pertaining to some sphere in which an engineer is or should be involved. The competition's sponsor, the ASME Old Guard Committee, offers prize money to competition winners.

Section B Information for Student Entries

ADVANCE registration is required to guarantee a presentation slot during the E-Fest Digital sessions. A maximum of seventy entries will be accepted for judging, with no more than three from the same university. First come, first serve in both cases.

B-1 Eligibility and Requirements

To be eligible to participate in the Oral Competition, each contestant must currently be a student who:

- Has not yet received a bachelor's degree in Engineering,
- Is an ASME Student Member in good standing, and
- Must submit your title and a 300 - 400 word abstract by February 16, 2022

B-2 The Presentation

Each student presentation is to last no more than fifteen minutes.

Each presentation in the Oral Competition must be delivered in English. The subject matter of each presentation must address a technical, economic, or environmental aspect of engineering or other basic engineering theme, provided it pertains to some sphere in which an engineer is or should be involved. A major portion of a contestant's total score is based on the judges' evaluation of his or her capability to communicate orally.

A competitor may utilize any available resource but must realize that the presentation is to be an individual effort. Assistance in the use of visual aids is advisable (PowerPoint, models, etc.). Video clips, if used, may not exceed one-minute total duration (i.e., a maximum of one minute for each student presentation may be used for embedded video, but be aware that embedded video clips may not play well in ZOOM. Use of video clips in the presentation is entirely at the presenter's risk). Video clips may not be accompanied by any recorded sound, although explanations may be provided by the presenter as the video is being played. Good practice and courtesy suggest credit be given during the presentation for any outside help related to the reported project. A written paper or manuscript is not required.

Students planning to compete are encouraged to review the JUDGING instructions detailed below in Section C – [Information for Judges](#).

B-3 Competition Entry

Advance registration for the Oral Competition is required. This is separate from and in addition to the E-Fest registration. The deadline to register for the Oral Competition is March 15, 2022. A maximum of only 70 entries, with no more than three from the same university, will be accepted. Your spot in the virtual competition will not be considered until you complete your advance registration. Be sure to complete all information requested when registering. Incomplete registrations will not be accepted. If more than 70 individuals or more than three from the same university register, then only the first 70 registrants consisting of no more than three from the same university, will be accepted to compete. You may only compete in one E-Fest Oral Competition in a given year.

You will be notified if your registration is not accepted for any reason. You are committing to participate by completing the registration process and submitting an abstract. Your speech title and abstract are required for registration.

E-Fest Oral Competition for undergraduate students will be held virtually (via ZOOM) during 2022 E-Fest. The presentation schedule will be published as soon as it is developed. Students who register but do not present risk having their school excluded from the 2023 E-Fest Oral Competition.

B-4 Conduct of the Contest

Each presentation in the Oral Competition shall be made by one contestant. Any questions regarding procedure shall be resolved by ASME staff or the Old Guard Committee before E-Fest Digital (send your questions in advance to [**efests@asme.org**](mailto:efests@asme.org)).

Depending on the number of presentations the ASME Old Guard committee will determine the number of separate judging sessions to be held. Presentations will be live via ZOOM. Each student will be notified of the date and time for their presentation, and the ZOOM link to be used. Presenters may invite fellow students, professors, and others to attend their presentation, but not to participate in any question-and-answer session following their presentation.

JUDGING WILL BE BASED UPON THE FOLLOWING:

B-5 Content

- To what extent is the subject of interest to a technical audience?
- Is credit given for source of material or contribution by others?
- How much knowledge of subject was exhibited?
- Is work independent and original?
- Is the subject technical or general in nature?

B-6 Organization

- Is there any novel approach to the subject?
- Is there sufficient background information provided to introduce the audience to the subject?
- Are the facts developed in logical and continuous sequence?
- Is there a definite conclusion, and is it adequately based on the facts or data presented?

B-7 Delivery and Effectiveness

The effectiveness of each presentation is subject to the following and other pertinent questions.

- Are the words distinctly pronounced with a speed appropriate for the cultural makeup of the audience and judges and was proper volume used to be heard by all?
- Is proper English used, and is the vocabulary sufficient?
- Is personal appearance appropriate?
- Are there any distracting mannerisms?
- Is the manner of delivery (conversation, memorized, read from manuscript) satisfactory?
- If visual aids are used, how effectively are they used?
- Is the presentation within the time limit of 15 minutes allowed?

Section C = Information for Judges

C-1 Judging and Scoring Criteria

Each competition session is to be judged by the same Judging Team throughout, preferably three judges, but a minimum of two ASME members of mature judgment, who are selected along with one or two alternates.

The Presentations will be judged in four categories Content, Organization, Delivery and Effectiveness as given in B-5, B-6 and B-7 above. See hotlink below for the Judging Sheet to be used.

Judges are to use the [Scoring Sheet](#) as the basis for judging the E-Fest Digital. The Scoring Sheet has been developed for the convenience of the judges in evaluating the presentation in competition. Scoring Sheet samples will be sent to the judges for familiarity ahead of the contest. Completed Scoring Sheets are not to be given to the presenters. Judges must agree to serve through the entire contest, be it one or two days.

Section D = Prize Money available for E-Fest Digital 2022

Judges will select First, Second and Third Place winners for each presentation session based on the criteria specified in the competition score sheet. An additional award is available for "Best Technical Content."

D-1 E-Fest Digital Awards – Applicable for 2022 & Certificates

- First \$750.00
- Second \$400.00

- Third \$200.00
- Technical \$100.00

D-2 Winner Announcement

Announcement of the winner placement will be made at the E-Fest Digital Awards Ceremony on Saturday, March 26, 2022 (exact time will be announced on the E-Fest Digital website - visit <https://efests.asme.org/> for more information). Judges shall not release winner placement early. The winners might also be recognized and featured at Society events and in various ASME publications and web sites.

Section E = Prize Money available at IMECE the Final Competition

E-1 2022 ASME IMECE

The FIRST-place winners from the E-Fest Digital competition session will be invited to participate in the IMECE finals of the Oral Competition. The SECOND-place winners **MAY** be invited on a space available basis determined later by the Old Guard Committee.

Finals take place at the ASME IMECE in November 2022. Except for the timekeeper's actions, the rules for the IMECE competition finals will be very similar to the virtual E-Fest competition. It is not known at this time whether the 2022 finals will be live or virtual.

E-2 Presentation Requirements

No substantial changes from the presentation given at the E-Fest Digital may be made for the finals at IMECE. Any substantial change of title or major revision of the presentation given at the E-Fest Digital will result in disqualification and may result in loss of travel reimbursement to attend a live, in-person final at IMECE (No travel reimbursement will be available if the finals are held virtually).

LIVE PRESENTATIONS

In the case of a live presentation, as in the virtual presentation, each student presentation is to last no more than fifteen minutes. In addition, there will be five (5) minutes for Q&A immediately thereafter. Any time remaining from the fifteen minutes will be added to the five-minute Q&A discussion. A five-minute transition time between presentations is recommended.

Questions may be asked by any attendee of the competition except those from the competitor's own educational institution. Each person posing a question to a speaker must stand, identify himself/herself and school, and then proceed with the question.

TIMEKEEPER: In a live presentation, in addition to the judges there will be a timekeeper. The timekeeper will be clearly visible to the speaker throughout the presentation. At the end of twelve minutes, the timekeeper will signal to the speaker that there are three minutes remaining.

At the end of fourteen minutes, the timekeeper will signal to the speaker that there is one-minute remaining.

At the end of fifteen minutes, timekeeper will signal for the speaker to conclude the presentation. The timekeeper will signal at the end of five minutes to terminate the discussion period. The speaker should promptly complete response to the current question and close their presentation.

E-3 Judging

The final competition at IMECE is judged by a panel of three volunteers from within the ASME community, based on the same scoring worksheet criteria as the E-Fest events. The winners are also recognized at Society events and featured in various ASME publications and web sites.

E-4 Competition Finals at ASME IMECE in November 2022

Society Awards (Finals at IMECE)

- First \$2,000.00
- Second \$1,500.00
- Third \$1,000.00
- Fourth \$500.00 (only when there are at least eight contestants)
- Innovation \$250.00

E-5 Travel support from the Old Guard

When applicable and when ASME in-person travel resumes, travel expenses for attending the final competition will be covered using standard ASME travel reimbursement rules covered by Society Policy P-4.5. A copy of the travel reimbursement expense form may be downloaded from the ASME web site. Reimbursements are limited to a maximum of \$1000.00 for winners from North America (Canada, Mexico, or United States), and limited to a maximum of \$1500.00 (US\$) for winners from outside of North America. The winner is responsible for any expenses above these maximum amounts.

Adopted by the Old Guard Committee
July, 2021

附錄三

2022 年國研盃智慧機械競賽(ASME Taiwan SPDC)報名流程

1. 報名時間：即日起至 2022 年 2 月 28 日截止。

A. 填寫報名網址：

https://eservice.tiri.narl.org.tw/itrcweb/IONE/IONE_SignUp.aspx?entry=9

B. 繳交保證金 1000 元，請至下列繳費系統填寫資料與繳款

C. 線上資料填寫完成後，請選擇「信用卡繳費」完成繳費程序，或「列印收費單」至全省超商門市（7-11、全家、OK、萊爾富）繳費；亦可利用自動提款機、網路銀行、網路 ATM 轉帳繳費（需自付手續費）。

D. 註：因超商繳費入帳時間需費時約 5-7 日，利用全省超商門市（7-11、全家、OK、萊爾富）繳費者，若有問題煩請一週後，再來電（賴小姐 (03-5779911 轉 656)）查詢，謝謝！

E. 保證金一隊 1000 元整，需準時報到，並全程參與活動，在頒獎結束後，退還全額保證金 1000 元。

F. 報名後約三到五天之間會傳簡訊至隊長手機確認報名，如果沒有收到訊息，請聯絡：

總召：李宗恩

email: r31680409@yahoo.com.tw

副召：余若甄

email: jenna04140126@gmail.com