

# IFEC 2023

## 2023 International Future Energy Challenge College Student Competition Call for Proposals

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### IFEC Introduction

IFEC is an international student competition for innovation, conservation, and effective use of electrical energy, which is open to college and university student teams from recognized engineering programs in any location.

The competition is sponsored by the Institute of Electrical and Electronics Engineers (IEEE) Power Electronics Society (PELS), Power & Energy Society (PES), Industry Application Society (IAS), Industrial Electronics Society (IES) and Power Sources Manufacturers Association (PSMA).

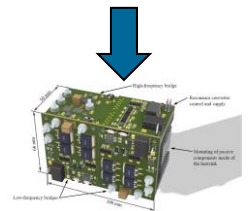
### Topic: Single-Phase Solid State Transformer

#### Preliminary Specifications:

- Input: 1 $\Phi$ -230Vac nominal (85V~250V)
- Output: 1 $\Phi$ -230Vac; THD <5%; 600W
- Efficiency: >95%@600W and >96%@300W
- Plug-and-play (Autonomous control)
- Compact design; Robust



[https://www.block.eu/de\\_DE/produktvariante/uste-6302x115/](https://www.block.eu/de_DE/produktvariante/uste-6302x115/)



### Final Competition Location

Leibniz University Hannover, Germany

### Participation

Participation is on a proposal basis. Those schools that are interested must submit a proposal to the topic chairs above before the proposal deadline. Each Proposal will be judged by a distinguished panel of volunteer experts from the IEEE and from industry. Schools with successful proposals will be notified and qualified for the rest of the competition. Deadline for each period will be posted on the IFEC website mentioned below. The outstanding teams will be invited to a competition event in summer of 2023.

There will be a Grand Prize of \$10,000 and three additional awards granted at \$5,000, \$3000 and \$1,000 each.

### Important Notice:

- ✧ Each university can support only one team.
- ✧ Teams should have minimum 4 members, with at least two undergraduate students.
- ✧ Interdisciplinary teams are encouraged.
- ✧ Graduate students are not excluded, but are limited to the advisory role in the team.

### Important Deadlines

- |                              |               |
|------------------------------|---------------|
| ■ Workshop at EPE and ECCE   | Sep/Oct, 2022 |
| ■ Proposal Deadline          | Oct, 2022     |
| ■ Notification of Acceptance | Nov, 2022     |
| ■ Workshop at APEC 2023      | Mar, 2023     |
| ■ Notification of Finalists  | Mar, 2023     |
| ■ Final Competition          | July, 2023    |

Please visit <http://www.energychallenge.weebly.com/> for more detailed information.

### Sponsored by:

