

# CALL FOR PARTICIPATION AND SCHOLARSHIP FUNDING

## POWER TAC POWER TRADING AGENT COMPETITION 2021

Form a team to compete and apply for funding



Application deadline: 01 July 2021  
Results to be announced: 15 July 2021  
Beginning of the Scholarship: 01 August 2021  
End of the Scholarship: 31 October 2021

Deadline extended  
till 20th July



Are you a Bachelor, Master, or Ph.D. student with a strong interest in energy markets and/or machine learning? Do you want to challenge your skills under competitive conditions with an ambitious team? Do you want to network with international energy informatics scientists?

Take part at the Power TAC competition and apply as a team or individually for the 2021 tournament.

### Power TAC Simulation Game

TAC teams develop an independent trading agent that competes against other agents in the Power Trading Agent Competition. Power TAC is a competitive simulation that models a "liberalized" retail electrical energy market in which competing business entities or "brokers" offer energy services to customers through tariff contracts. They then serve those customers by trading in a wholesale market. Brokers are challenged to maximize their profits by buying and selling energy in the wholesale and retail markets, subject to fixed costs and constraints. The winner of an individual "game" is the broker with the highest bank balance at the end of a simulation run. Costs mimic real world considerations and include fees or penalties for publication and withdrawal of tariffs, rectifying supply-demand imbalances, contributions to peak demand, and for customer connections. The competing brokers are designed by teams from around the globe. Your team will be one of them.

### Prerequisite for participation:

- Current enrolment in a university for a Ph.D., masters or bachelors degree
- A team in which the following skills are represented:
  - Solid command of programming skills in Java
  - Basic skills in reinforcement learning
  - Programming skills in Python are helpful but not necessary
  - Understanding of electricity markets
- If you have at least one of the skills mentioned above or have a formed a team which covers many but not all of the necessary skills, contact us as soon as possible and we will try to match you with other applicants.
- To register your team, visit <https://powertac.org/>

### BaSEF Online Scholarships (DAAD funded)

The PowerTAC Simulation Game is open to participants around the globe. For participants enrolled at a University of the MENA-region (Middle East and North Africa) or at the University of Cologne, there are DAAD online scholarships available, as part of the BaSEF project (<https://basef-network.com/>) to build up intercultural research networks

### Funding requirements:

- Participation in the Power TAC tournament
- Availability for participation in the 5-day summer school "Modelling Future Solutions for Europe and the MENA-Region"
- Availability for participation in three intercultural online workshops during the program

### Required documents:

- CV
- Proof of enrolment at a university.
- Letter of motivation (expected outcomes of your participation in the Power TAC Tournament should be highlighted). The letter should not exceed one page.

### Funding Conditions:

- From August until October 2021
- Funding of 300€ per month

Deadline extended  
till 20th July

To apply for the BaSEF DAAD Online Scholarship, visit <https://basef-network.com/>, deadline 1st July 2021

### Scientific and Organizing Committee

**Prof. Dr. Wolfgang Ketter,**  
Director of the Institute of Energy Economics  
at the University of Cologne (EWI)

**Prof. John Collins,**  
Computer Science and Engineering,  
University of Minnesota

### Contact

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