



I.FAST Open Steering Committee

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i.FAST Challenge based innovation?



- During 9 days teams of students will try to suggest innovative solutions based on accelerators technologies to address a challenge.
- On the 10th day they will present their work to a jury at CERN.
- Topic for 2021: “Accelerators for the environment”

Topic 2022

- We decided to have topic in line with the Horizon Europe missions:
 - Cancer
 - Adaptation to climate change including societal transformation
 - Healthy oceans, seas coastal and inland waters
 - Climate-neutral and smart cities
 - Soil health and food
 - More details on these missions can be found at https://ec.europa.eu/info/horizon-europe/missions-horizon-europe_en
- A program committee drawn from experts from I.FAST and beyond was asked to give advice on which topic would be the most suited.
- The selected topic for 2022 is “**Accelerators for the environment**” (which covers both the maritime environment and the terrestrial environment).

Who/when /where?

- The target audience is students sufficiently advanced in their studies but not yet too specialized.
 - Students in their 2nd cycle of studies (typically 3rd to 5th year of University), before the start of doctoral studies.
- 24 students will be selected to form 3 teams of 8 or 4 teams of 6 students.
- We want students beyond physics and engineering.
 - Ideally each team should comprise students from physics, engineering, environmental sciences, law and economics...
- Multidisciplinarity of the teams is key to have them propose projects that are well suited.
- All expenses, including travel will be covered by the project.
- Dates: Tuesday 26/07/22 to Thursday 4/08/2022
- The challenge will take place at the European Scientific Institute (host of JUAS) in Archamps near Geneva.

Seminars

- One of the key element to success is to give participants access to high level expertise.
- We will organize seminars before the challenge to bring them up-to-date on accelerators and on environmental challenges and during the challenge so that they can meet and exchange with high level experts.
- We are looking for high level experts on accelerators (that's easy to find for us) and on the environment.

Applications

- A call for applications will be circulated soon.
- The call will be published on <http://www.ifast-cbi.particle-accelerators.eu/>
- It will be important to reach out communities outside physics and engineering:
 - environmental scientists,
 - lawyers,
 - economists,...

Expected outcome

- Students will be asked to prepare a final report and give a presentation in front of a jury at CERN.
 - We want a friendly competition
 - A prize will be given to the student asking the most insightful question
- Jury (to be confirmed):
 - 2 experts from knowledge transfer
 - 1 person from industry
 - 1 prominent scientist
 - 1 person from an NGO or an international organization
- If a project is sufficiently promising, we will help the team to take it one step further.

Planning (Challenge 2022)

- Soon: open the call for applications, circulate it to all I.FAST and JUAS partner Universities.
- Late January/mid February: Deadline for applications
- March 31st : Successful applicants notified
- *April 2022: Milestone MS6*
"Definition of CBI scheme: proposed topic and organisation at ESI"
- Early July: first online get together and introductory seminars
- Tuesday 26/07/22 to Wednesday 3/08/2022: challenge at ESI
- Thursday 4th August 2022: Presentation to the Jury at CERN
- September 2022: Feedback meeting on the challenge 2022
- *April 2023: Deliverable D2.2: report on the I.FAST CBI*

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