

HACKING FOR HUMANITY: WILDFIRE ALERTS, TACKLING DOMESTIC VIOLENCE, REDUCING EDUCATIONAL INEQUALITY AND MORE AT CERN'S GLOBAL WEBFEST

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Once again, gluoNNet supported its collaborator CERN openlab in the facilitation of the CERN Webfest hackathon. This article about this year's CERN Webfest was written by Andrew Purk Communications Officer at CERN openlab. The original publication can be found on [openlab.cern](#)

The 2021 CERN Webfest took place on the weekend of 21-22 August. The Webfest is CERN's annual hackathon based on open web technologies. 300 people signed up for this year's event, which was held online for only the second time. The participants — from 63 countries spread across the globe — formed into small teams and used their combined skills and knowledge to develop innovative prototype apps, hardware, and other tools.

The theme for this year's Webfest was "science, society, sustainability", with participants encouraged to work on projects that address certain UN Sustainable Development Goals. In line with these, teams at the Webfest created an application to warn of wildfires, a concealed alarm system for victims of domestic violence, a directory for online learning materials, a website providing clear and accurate information about nuclear energy, a health app that identifies nutrient deficiencies, an AI system to aid with studying, and much more. Information on all 22 innovative projects can be found on [the Webfest website](#).

"Focusing on the Sustainable Development Goals, the participants in this year's CERN Webfest showed a great commitment to using their skills to improve our world," says Charlotte Warakaulle, Director for International Relations at CERN. "Their creativity and innovation has not only generated new practical solutions to societal challenges, but has also inspired new ways of working together." Warakaulle, who was one of the judges at this year's event, continues: "The wealth of ideas presented has great potential to make a real difference in peoples' lives. Congratulations to all of the participants for this achievement!"

Each year, one project is selected as the overall Webfest winner. The eight judges at this year's event selected a project that uses crowdsourced designs and 3D printing to create tools for disabled people. In particular, these tools are aimed at helping people with conditions like ectrodactyly and syndactyly (malformations of the hand) to use everyday objects. During the Webfest, the team was able to create a prototype attachment that helps those with these conditions to pick up drinking bottles. Find out more about the winning project [here](#).

"For me, the Webfest was more than a hackathon; it was a portal for meeting new people from various backgrounds and learning about their journeys," says Komal Kedarnath, a mechanical engineering student from India and a member of the winning team. "This kind of collaboration naturally fosters innovation and elicits creativity. I had the best time during the networking

sessions, where I talked to people from 10 different time zones about how they got here. It was amazing!”

In addition to these networking sessions, the Webfest offered a fun CERN-themed quiz, an online exercise session, and several how-to workshops focused on practical skills, such as how to give good presentations and how to create short videos. This diverse programme was made possible thanks to the Webfest’s supporters: CERN openlab, gluoNNet, RemotelyGreen, Veertly, Citizen Cyberlab, Crowd4SDG, THE Port, CERN Alumni, Quantum FutureX, AI Crowd and CERN Fitness Club.

“Sharing ideas with other participants during the Webfest really helped us to improve the way we approach our project,” says Diego Lopez Yse a data science student in Argentina. “Through exchanging views and experiences, we were able to come up with new ways to solve our challenge, while also helping others with their projects.” He continues: “I highly recommend participating in the Webfest: you meet incredibly talented people who can help you grow and expand your vision.”

Given the global interest once again shown, the organisers plan to run the hackathon online again next year.

“We’ve come a long way since 2012 when Francois Grey and I founded the Webfest as CERN’s very first hackathon,” says Ben Segal, CERN honorary staff member and member of the International Hall of Fame. “Taking the Webfest online has added a lot, bringing us closer to massive amounts of talent spread all over the Internet.”

Watch the Webfest’s closing ceremony on YouTube to find out more about the event.