Ibrahim Demir of the Iowa Flood Center (IFC) at the University of Iowa (UI) has been awarded a grant from Microsoft as part of its "AI for Earth" program. Demir is an assistant professor of civil and environmental engineering who also leads the Hydroinformatics Lab at the University of Iowa. He will use the award to develop "Flood AI," an artificial intelligence system that serves as a virtual flood expert (similar to Siri).

Flood AI is accessible through many smart devices, including smartphones, chat applications such as Skype, smart home devices, and more. Users can ask Flood AI any flood or weather related question and get a quick answer.

"It's like talking to a friend who happens to be a flood expert," Demir says.

AI for Earth is a Microsoft program aimed at empowering people and organizations to solve global environmental challenges by increasing access to AI tools and educational opportunities, while accelerating innovation. Via the Azure for Research AI award program, Microsoft provides selected researchers and organizations access to its cloud and AI computing resources to accelerate, improve, and expand work on climate change, agriculture, biodiversity, and/or water challenges.

Demir is among the first recipients of AI for Earth, which launched in July 2017 after a competitive and selective grant process. Microsoft awarded the grants in recognition of the potential of the work and power of AI to accelerate progress.

"Ibrahim's work is part of the foundation of the Iowa Flood Center's service to Iowans," says IFC Director Witold Krajewski. "He is the chief architect of the Iowa Flood Information System, which puts the IFC's innovative flood-related tools and information in the hands of all Iowans."

The Iowa Flood Center is based at IHR—Hydroscience & Engineering, a UI research institute focused on fluids engineering. IHR Interim Director Gabriele Villarini says Demir's work is on the cutting edge of hydroinformatics—the art and science of providing data and information directly to users through online systems. "Ibrahim continues to break new ground," Villarini says. "His work directly serves Iowans by providing the real-time information they need to make informed decisions when flooding occurs."

When flood events happen, people need information—no matter what the time of day or night. Demir says that Flood AI—available 24 hours a day—will be like talking to a friend who happens to be an expert on flooding. Flood AI will support the Iowa Flood Center's mission to provide flood-related information and technology that is immediately useful to Iowans.

To date, Microsoft has distributed more than 35 grants to qualifying researchers and organizations around the world. Today (https://blogs.microsoft.com/on-the-issues/2017/12/11/ai-for-earth-can-be-a-game-changer-for-our-planet/), Microsoft announced its intent to put $50 million over five years into the program, enabling grant-making and educational training at a much larger scale.


More information about AI for Earth can be found on the website: https://www.microsoft.com/en-us/ai/for-earth