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## Artificial Intelligence May Revolutionize Natural Disasters

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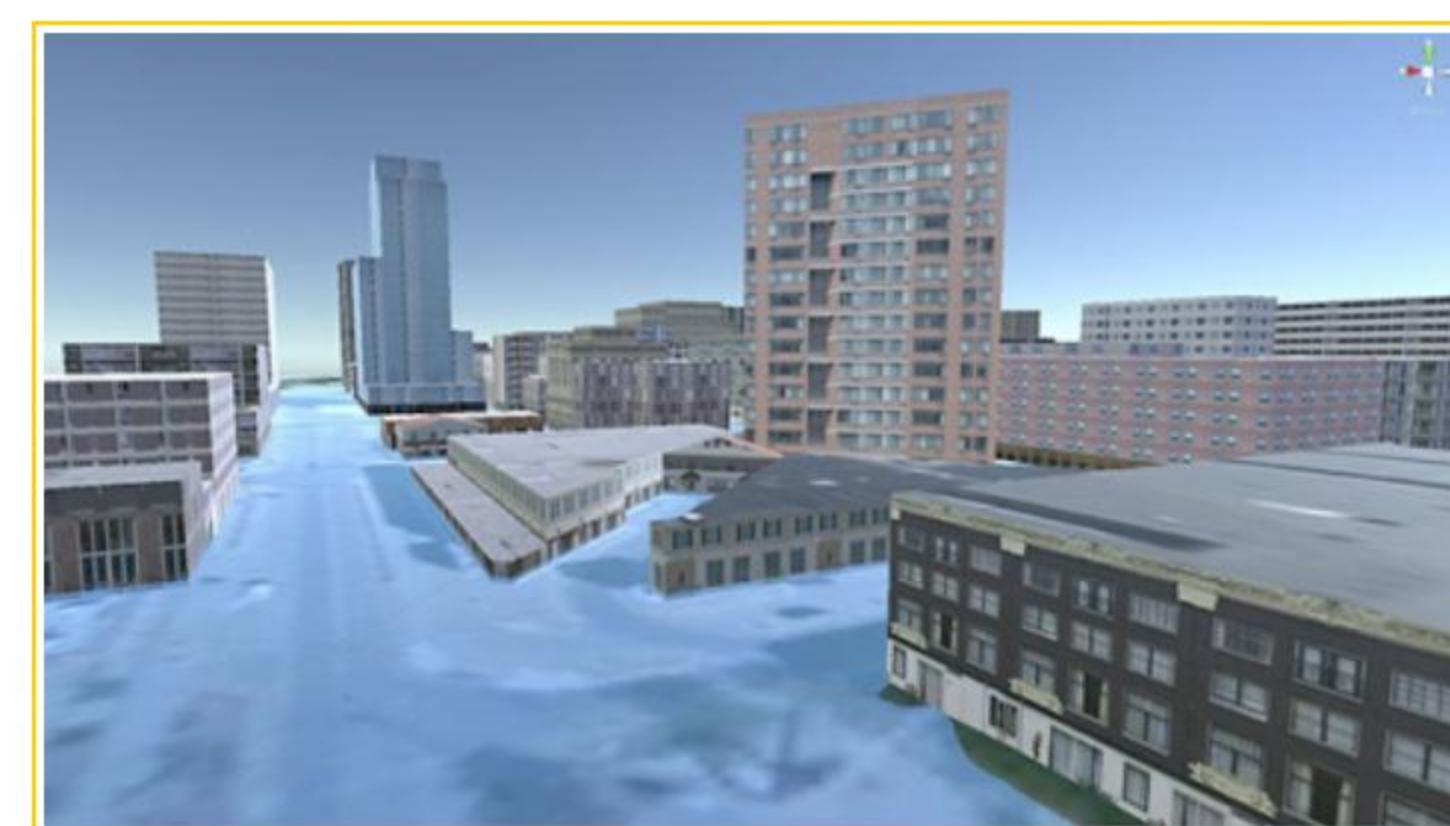
Samantha McLaughlin and Dylan Larino

Ibrahim Demir, assistant professor of civil and environmental engineering and associate faculty researcher, IIHR-Hydroscience and Engineering is researching an Artificial Intelligence (AI) system that could revolutionize natural disasters and how big data analytics can be used by social media. With all of the flooding in country over the past decade, this research is more important than ever. The project utilizes the latest web technologies, cloud computing, natural language processing and machine intelligence techniques to communicate disaster information to the public. Users would interact with the Artificial Intelligence system (e.g. Siri for Floods) with their voice in order to receive answers to their questions on flooding (e.g. flood conditions, forecast, flood risk). In addition, the Flood AI also allows users to interact using apps (Skype, Messenger), smart devices (Google Home, Amazon Echo) and web apps. It would also enable augmented reality applications with holograms to support decision makers on disaster response and recovery efforts.

The social media aspect is described as “a cloud computing infrastructure for acquisition, processing and analyzing social media feeds in real-time for improving flood monitoring and prediction, and supporting flood preparedness, recovery and response.” Citizens would be engaged through the use of hashtags on Twitter such as #IowaFlood or #FloodIA. These tweets would then be indexed on IFIS. This would help with effective disaster management. Graduate students Yusuf Sermet and Muhammed Ali Sit are main developers on these projects.

These are two of Dr. Demir’s many projects relating to natural disasters.

For information, visit [Professor Demir's website](#).



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