

For Immediate Release



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**The American University of Beirut is a Google AI Impact Grantee**  
***A team of AUB professors will apply AI to improve irrigation water management***

Google announced that the American University of Beirut (AUB) is one of 20 organizations that will share \$25 million in grants from Google.org, credit and consulting from Google Cloud, and coaching by Google's AI experts as a grantee of the Google AI Impact Challenge. The Google AI Impact Challenge was an open call to nonprofits, social enterprises, and research institutions from around the world to submit their ideas to use AI to help address societal challenges. Over 2600 organizations applied.

The grantee team from AUB will receive a \$1 million grant to employ machine learning (ML) models in order to process multispectral and thermal satellite imagery, local weather data, and farmer-supplied agricultural data for estimating crop water use in near-real-time at the agricultural field scale. The exact amount of water needed to irrigate crops in a specific field, along with a suggested irrigation schedule would be communicated to the farmer through a mobile application, or directly to the irrigation system using a smart irrigation controller. The proposed technology intends to revolutionize established irrigation practices by providing near-real-time water-use data predictions to farmers, enabling them to make accurate irrigation decisions and to conserve water. It will also make smart irrigation more accessible to small-scale farmers in Lebanon and other arid and semi-arid regions around the world.

The AUB team includes Professors Fatima Abu Salem (Computer Science , Faculty of Arts and Sciences ) who will lead the AI and ML component of the project, Hadi Jaafar (Agriculture, Faculty of Agricultural and Food Sciences) who will lead the project overall as well as the remote sensing and smart irrigation component, Samer Kharroubi (Nutrition, Faculty of Agricultural and Food Sciences) who will lead the statistical modeling and analysis component, and Mazen Saghir (Electrical and Computer Engineering, Maroun Semaan Faculty of Engineering and Architecture) who will lead the embedded systems and Internet of Things component.

Next week, Professors Jaafar, Kharroubi, and Saghir will travel to San Francisco to dive into execution. For five days, all 20 organizations will join Google AI experts, project managers, and the startup specialists from Google's [Launchpad Accelerator](#) for a program that will last six months, from May to November 2019. Through the Launchpad program, each of the 20 grantees will develop their own OKRs—objectives and key results—and set timelines for project completion. Each organization will be paired with a Google expert who will meet with them regularly for coaching sessions, and will also have access to other Google resources and expert mentorship.

“Obtaining this grant is an affirmation of the quality of our faculty members and of AUB. It also allows us to explore the positive impact of AI at a time when there is a great deal of negative press on AI and its impact on jobs, privacy, and other matters,” said Dr. Fadlo Khuri, president of AUB.

“We received thousands of applications to the Google AI Impact Challenge and are excited that the American University of Beirut was selected to receive funding and expertise from Google. AI is at a nascent stage when it comes to the value it can have for the social impact sector, and we look forward to seeing the outcomes of this work and considering where there is potential for use to do even more,” said Jacqueline Fuller, president of Google.org

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## **Note to Editors**

### **About Google.org**

Google.org, Google's philanthropy, supports nonprofits that address humanitarian issues worldwide and apply radical, data-driven innovation to solving the world's biggest challenges.

### **About AUB**

Founded in 1866, the American University of Beirut bases its educational philosophy, standards, and practices on the American liberal arts model of higher education. A teaching-centered research university, AUB has more than 900 full-time faculty members and a student body of about 9,100 students. AUB currently offers more than 120 programs leading to bachelor's, master's, MD, and PhD degrees. It provides medical education and training to students from throughout the region at its Medical Center that includes a full-service 420-bed hospital.

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