**Ibrahim Demir, Assistant
Research Professor in the
area of Hydroinformatics and
Information Visualization at the
University of Iowa, US.**

Academic Spotlight
Ibrahim Demir

*"It is all about making flood related data and information easily accessible and
understandable for the general public…"*

- Ibrahim Demir

Turning a flood of data into flood safety

The BlackBerry® Academic Program is an initiative that provides resources that help
academics around the world link mobile innovation to education. Ibrahim Demir,
Assistant Research professor in the area of Hydroinformatics and Information
Visualization at the **University of Iowa** is using the BlackBerry Academic Program
to bring mobile technology into his classroom — while putting real-time warnings of
impending floods into the hands of the public.

Applying apps to environmental monitoring

Professor Demir's focus includes environmental information systems, visualization
of large scale data, information communication, and web development. His aim is to
make large scale geo-spatial data accessible to researchers and the public in both
real-time and in an interactive graphical format that's easy to understand.

His ultimate goal is to provide users with a range of mobile solutions that provide
access to warnings of imminent floods in real time.

Communicating real-time with the general public

His current work aims to improve flood level monitoring in areas of Iowa that are prone
to floods.

"Mobile technologies help us integrate real-time data from environmental sensors in
the field directly to our databases," Professor Demir explains. "This allows us to feed

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our models with real-time data and provide time critical information to the general public — for example, flood warning and forecasts."

His mobile application integration has the potential to influence public safety by providing flood warnings by putting real time information into the users' hand.

"Mobile applications have the potential to [support the management of] environmental risks and to help increase awareness, access timely information (e.g. warnings, real-time conditions), support community collaboration efforts, improve citizen science initiatives, and coordinate emergency management."

Professor Demir and other researchers at the University's **Iowa Flood Center** are focusing on providing a one-stop platform for information where local communities can access "flood conditions, forecasts, visualizations…flood-related data, information, and applications."

By integrating mobile platforms into his research, Professor Demir is working to transform the current flood monitoring systems.

Why BlackBerry?

In his projects, Professor Demir has integrated BlackBerry PlayBook tablets to support the large scale data that his projects and research demand. He also plans to begin teaching an information systems and data integration class this Fall using the BlackBerry platform.

"BlackBerry can provide a good starting point for students to develop for mobile devices," Professor Demir says. "BlackBerry provides an open platform and a variety of development languages that fit the skills of our students. There is a good developer community and pre-existing code base to start developing applications for [the] BlackBerry platform."

The power of real-time data

Ultimately, Professor Demir's research aims to transform a traditional field of work — environmental monitoring — through mobile technologies.

"Communicating data in real-time with the general public," he says, "is critical to make better informed decisions on the occurrence of floods and to alert communities in advance to help minimize the damage [caused by] floods."

By integrating BlackBerry into his research, Professor Demir is helping to transform the flood monitoring systems, providing public real-time, actionable information on impending danger.

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