

SPRING 2018



Putting Clean Water Within Reach

Residents of Ullo, a dusty village in northwest Ghana, Africa, face nine months of drought annually.

During the dry season, children may get only a cup of drinking water a day, often walking miles for it. Teachers struggle to teach pupils distracted by thirst.

The Iowa State chapter of Engineers Without Borders aims to ease this drastic situation by developing a

water system that provides the village with enough water for the entire year.

“We visited Ullo in December to find potential drilling sites using an electrical resistivity device,” says Kevin Prince, a senior in civil/environmental engineering from Omaha, Nebraska, and the project’s team leader. “Early data is promising, and we will return this year to continue the work. There is real hope for this system.”

Founded in 2008, the chapter has also worked in Mali and Belize. These projects provide students real-world engineering problem-solving while working with international organizations.

“We’re using skills learned in the classroom to do good around the world,” says Will Parr, a junior in software engineering from Dallas, Texas, who leads the group’s fundraising efforts. “Seeing the impact is amazing.”



“**The people of Ullo taught me empathy, which has greatly expanded my education during my adventure at Iowa State.**”

Kevin Prince, senior



Wash and Wear Electronics

A discovery by an Iowa State University professor and his research group of nanoengineers could lead to washable electronics in textiles and better biological sensors.

A new research paper describes how they're treating printed graphene with lasers to create electronic circuits that repel water.

"We're taking low-cost, inkjet-printed graphene and tuning it with a laser to make functional materials," said Jonathan Claussen, an Iowa State University assistant professor of mechanical engineering, an associate of the U.S. Department of Energy's Ames Laboratory and the corresponding author of the paper recently featured on the cover of the journal *Nanoscale*.

The nanotechnology "would lend enormous value to self-cleaning wearable/washable electronics that are resistant to stains, or ice and biofilm formation," according to the paper describing the discovery. It could also have applications in microfluidic technologies, drag reduction, electrochemical sensors and technology that uses graphene structures and electrical simulation to produce stem cells for nerve regeneration.

The studies have been supported by grants from the National Science Foundation, the U.S. Department of Agriculture's National Institute of Food and Agriculture, the Roy J. Carver Charitable Trust, plus Iowa State's College of Engineering and department of mechanical engineering.

The Iowa State University Research Foundation is working to patent the technology.

Learn It... Love It... Live It!

74,000

students are engaged in Iowa State's learning communities to date.

850

student clubs and organizations mean 850 ways for students to connect with their passion.

95

percent of students go directly from Iowa State to jobs or continuing education six months after graduation.

Source: Alliance for Iowa State

Twice the Pomp, Circumstance in Half the Time

Iowa State University split its undergraduate commencement into two ceremonies on the same day this spring, with graduates from three colleges recognized at each. Both ceremonies were held on May 5 at Hilton Coliseum.

The change was announced by President Wendy Wintersteen and proposed by a task force that spent several months studying various options and surveyed the senior class for student input.

The intent of two ceremonies was to provide all graduates with the elements they seek in their graduation day. That includes having their names read as they walk across the stage, seating for an unlimited number of guests, a shorter event and multiple colleges sharing a ceremony so new grads can celebrate with friends.



Photo by Christopher Gannon

SUPERGIRL TO THE RESCUE

Story by Susan Flansburg and Reannon Overbey
 Illustrations: Toto Manivanh

Reannon Overbey was devastated by the loss of her father when she was in eighth grade. Thanks to friends and family, she regained hope over time. Today an Iowa State senior in graphic design with a minor in advertising, and recipient of the Elizabeth Kirke Memorial Award in Graphic Design, Overbey uses her own journey of healing as her super power, volunteering with the Iowa League of Heroes.

I WAS ALWAYS A HAPPY CHILD. I LOVED ART AND SOFTBALL. I LOVED MY PARENTS MOST OF ALL. MY DAD WAS A TEACHER, SO HE COULD ALWAYS BE HOME WHEN I WAS. WE DID EVERYTHING TOGETHER.

I JUST LOVE DRAWING!

WHEN I WAS IN 8TH GRADE, MY DAD HAD A STROKE. HE DIED BEFORE THEY COULD TREAT HIM.

MY WORLD WENT DARK.

I MISS YOU SO MUCH!

I DRAGGED MYSELF TO SCHOOL, BUT QUIT SOFTBALL AND ART. I DIDN'T SEE FRIENDS. I DIDN'T CARE ABOUT ANYTHING.

THIS IS POINTLESS!

WITH THE HELP OF MY FAMILY, TEACHERS AND FRIENDS, I BEGAN TO COME BACK TO LIFE. I STARTED PLAYING SOFTBALL AGAIN AND JOINED THE ART CLUB.

JOBS!

GRADES!

IOWA STATE!

FINALLY, EVERYTHING STARTED FALLING INTO PLACE. BUT I KEPT THINKING ABOUT ALL THE PEOPLE WHO HAD HELPED ME WHEN I WAS DOWN. I WANTED TO FIND A WAY TO HELP KIDS IN NEED, TOO.

GOT TO HELP KIDS!

SHOW US YOUR SUPER POWERS!

I BECAME SUPER GIRL WITH THE IOWA LEAGUE OF HEROES. WE VISIT KIDS WHO NEED A LITTLE JOY IN THEIR LIVES. IT'S THE MOST WONDERFUL FEELING TO MAKE A CHILD HAPPY FOR EVEN A MOMENT!

THANKS, DAD.

MY LIFE IS SUPER BUSY TODAY. I WORK THREE JOBS, GO TO SCHOOL FULL TIME, VOLUNTEER ON WEEKENDS AND SPEND TIME WITH MY DOG, OLIVER. I'M HAPPY, AND SO GLAD I CAN SHARE IT WITH THE KIDS. WE ALL HAVE TO LEARN THAT BAD THINGS CAN AND WILL HAPPEN, BUT THAT THEY CAN MAKE YOU A BETTER PERSON. I'M A BETTER PERSON BECAUSE OF WHAT I'VE BEEN THROUGH. - REANNON

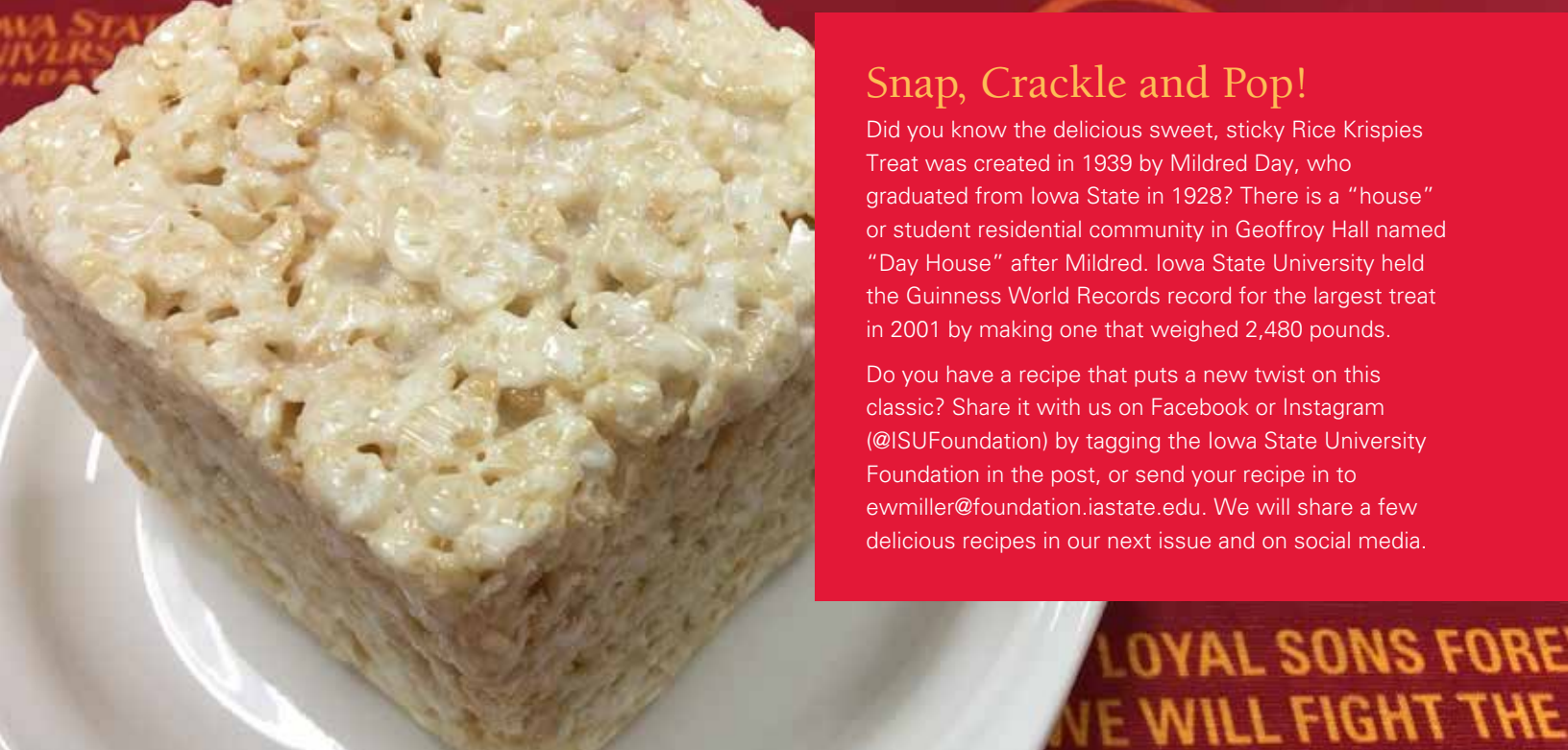
Welcome to **YOUR IOWA STATE**,
the newsletter that keeps you connected
with **Iowa State University**. Look inside to
find out what's happening on campus as
well as to relive some of your own Iowa
State memories.

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FIGHT FOR IOWA STATE
COLORS EVER FLY.

WE WILL FIGHT, FIGHT, FIGHT FOR IOWA STATE
AND MAY HER COLORS EVER FLY.



Snap, Crackle and Pop!

Did you know the delicious sweet, sticky Rice Krispies Treat was created in 1939 by Mildred Day, who graduated from Iowa State in 1928? There is a "house" or student residential community in Geoffroy Hall named "Day House" after Mildred. Iowa State University held the Guinness World Records record for the largest treat in 2001 by making one that weighed 2,480 pounds.

Do you have a recipe that puts a new twist on this classic? Share it with us on Facebook or Instagram (@ISUFoundation) by tagging the Iowa State University Foundation in the post, or send your recipe in to ewmiller@foundation.iastate.edu. We will share a few delicious recipes in our next issue and on social media.