

المنارة ^{the} BEACON

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SIZE MAKES A DRAMATIC DIFFERENCE IN TUNING ELECTRON INJECTION IN QUANTUM DOT SOLAR CELLS



Prof. Omar Mohammed and his research team work in the laser lab at KAUST's Solar Center to align the femtosecond transient absorption setup to monitor electron injection between quantum dots (QDs) and phenyl-C₆₁-butyric acid methyl ester (PCBM) in real time.

OMAR F. MOHAMMED, KAUST Assistant Professor of Chemical Science and the principal investigator of the



BILL GATES VISITS KAUST ON

بيل غيتس يستكشف فرص تعاون مع جامعة الملك عبد الله للحد

MY UNIVERSITY



IMRAN SHAFIQUE ANSARI

IN HIS time at KAUST, Ph.D. candidate Imran Shafique Ansari has flourished both personally and in his academic pursuits. Already the first author of 11 publications, Imran has found the research support of KAUST to be impressive. "KAUST has been amazing in achieving my objectives in terms of research for my Ph.D. I have been blessed with an amazing supervisor, who guides, teaches and shares knowledge beyond what is required. Additionally, the lab equipment at KAUST is very powerful for computational areas, and so are other research resources," he says.

According to Imran, though, it is not only the top-tier academics and facilities that make KAUST unique: "Most importantly, the work style is quite dynamic here, and as a student, one works according to the rhythm of his or her supervisor."

Though hailing from Budaun, India, Imran spent his formative years in Saudi Arabia. Upon completing his bachelor's degree at King Fahd University of Petroleum and Minerals, Imran was recruited to join the founding class at KAUST. The decision to accept was an easy one. "KAUST provides resources similar to the world's best universities in terms of faculty, research facilities and a competitive research environment," he says. "This environment leads to the advancement and gaining of top-level knowledge."

Imran earned his master of science in Electrical Engineering from KAUST in December 2010, and is now fully invested in his Ph.D. research. Studying under Dr. Mohamed-Slim Alouini, Imran is tackling issues regarding how to best adapt and apply the fixed and limited resources of wireless communications to the ever-expanding base of users and their growing needs.

When not battling with the issues of global communications, Imran takes full advantage of all that KAUST has to offer. His friends hail from all corners of the globe, and he appreciates how the international dynamic drives the social scene, stating, "KAUST has a very diverse environment and a very multi-cultural social life. Saudis have an excellent reputation for hospitality, and being part of the KAUST family makes this hospitality even better." His full and active schedule is made all the more enjoyable by his surroundings. "KAUST's panoramic view speaks for itself in terms of its rare beauty and for the innumerable recreational opportunities," he says.

From global communications to global friendships, Imran seems to have the perfect perspective on what KAUST is: "KAUST seems to be situated at the center of the globe, making every place on the map easily accessible." □



MICHAEL GILMER

HUMAN RESOURCES' Senior Recruitment Specialist Michael Gilmer works hard at his job but likes to keep things light, noting, "I'm a member of The Hair Club for Men." Seeing that Mike (as he prefers) is as bald as a marble floor, it's clear he doesn't mind having a laugh at his own expense.

Born and raised in the friendly city of Pittsburgh, Pennsylvania (U.S.), Mike still maintains his roots, despite now calling Orlando, Florida his U.S. home. "I still love my city and my Pittsburgh sports teams: the Steelers, the Pirates, and the Penguins," he says. Mike earned two bachelor's degrees

from Point Park University in Pittsburgh, and previously worked for noted companies Xerox Corporation, Sony Electronics and Delta Airlines, among others. "You need to be personable, social and a people person in my field," says Mike. "My job at KAUST is to locate and to hire the most qualified and most dynamic candidates that best fit our career openings and our community."

Mike doesn't have difficulty selling KAUST to potential candidates, stating, "One of the things I truly believe is that KAUST is a great place for families. We have a young, vibrant, growing community, and I get to work with and break bread with some of the most talented people in their respective professions." KAUST's dreamscape scenery is

not lost on him either. "Before I came to KAUST, I thought the photos on the website were amazing. But now that I've seen KAUST in person, the photos pale in comparison to the reality," he adds.

In his time away from the office, Mike likes to stay fit by taking in the full range of recreational opportunities at KAUST. "I like to go to the gym, and you can often see me out cycling," he says.

Being that he's a recruiter, it might be easy to forget that Mike himself was recruited to join KAUST. On that point, he notes, "I came to KAUST because I wanted to do something different. I wanted to live and to work overseas. KAUST was hands down the best opportunity to do that." □

transmitting tags (PSATs) to record the movement patterns of 15 Chilean devil rays in the central North DEVIŁ RAYS | Continued on p2

وقال الدكتور بروفيسور "المعلومات المنوفرة عن أسماك اللقطة محدودة للغاية وكنا تتمه صفحة 2

and 13 provisional patent applications. CBRC also graduated KAUST's first Ph.D. student and CBRC INAUGURATION | Continued on p3

over 30 invited international speakers and KAUST faculty. Under the theme of "Meeting Modern تتمه صفحة 3

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USING SCIENCE TO FEED THREE BILLION PEOPLE



"The world's population stands at 6.5 billion people right now. By the year 2050, we will be 9.5 billion. So we will have a gap of about 3 billion people to feed in the next 35 years," said Heribert Hirt, Associate Director of KAUST's Center for Desert Agriculture. An upcoming international



MORE PLASTIC THAN EXPECTED IN THE OCEAN

اكتشف الباحثون ارتفاع كمية المواد البلاستيكية
في المحيطات أكثر مما كان متوقعا

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MARÍA FERNANDA

Ph.D. candidate María Fernanda Contreras Gerenas has fully embraced all that KAUST has to offer in her five years here. Active in many pursuits, she is a former member of the KAUST female football club. "It was a nice experience. I got to share with the girls, participate in a tournament, and improve my football skills," she notes. Maria hasn't stopped with football, however. In addition to frequently playing tennis and swimming, she earned her PADI diver's certification, and then completed the advanced diver's course. "KAUST offers a pretty high life quality. In terms of recreational facilities and travel opportunities, it is a nice place to be."

Maria received her master's in Bioscience, and then decided

to stay on to pursue her Ph.D., also in Bioscience. As she notes, "I did my bachelor's thesis in biophysics and my bachelor's degree was in physics. I wanted to learn biology, which I did during my masters. Now during my Ph.D., I am combining the two disciplines in a potential biomedical application." Working under the guidance of Timothy Ravasi and Jürgen Kosel, Maria now finds that she is often the mentor, affirming, "My Ph.D. research topic has drawn the attention of master's students who are doing their theses in topics related to it. I taught them the basics of cell culture, and then they were able to be independent in their own lab work."

Born and raised in Bogotá, Colombia, Maria earned her bachelor's degree in physics from the National University of Colombia (Bogotá), and has done internships at the Membrane

Engineering Lab of The University of California at Davis (U.S.), and at the Laboratory of Materials and Low Temperatures at the University of Campinas (Brazil). A recipient of the KAUST Academic Excellence Award, Maria's research is profound in both complexity and in its potential.

"KAUST has been more than just a university to me. Here I have found life-long friendships, and I found the love of my life - to whom I got married around year and a half ago. Being at KAUST has also allowed me to travel to locations that previously seemed unreachable, and that I have never thought I would visit at my young age. Last but not least, KAUST has provided me with everything I need to fulfill my professional goals - nice research facilities, personnel, and working environment." □



NATHANIEL ROBINSON

Texas-born Nathaniel Robinson has been around - including some ups and some downs, noting, "I've been fortunate to survive a series of events - from cancer to sinking a kayak in the Arctic Sea and then swimming for my life to the shore. Interesting things seem to happen to me. So if I'm on your snorkeling trip you may want to think about rebooking; but on the positive side, I've made it through all of them with memories to hold." And many stories to tell, it sounds.

Nate (as he prefers), has lived across the United States from Alaska to Florida, and spent time in Peru, Mexico, and Oman - before making it to KAUST. "I enjoy being able to expand my views, approaches to projects and challenges, and a diversity of experiences. KAUST offers the opportunity for each of those. I'd like to see more of the world and learn more languages, which is also something KAUST can help to achieve," he said.

With degrees in engineering, technology management, economics and finance, Nate brings his considerable resume and experience as manager of the Advanced Engagement and Support Department, within Saudi Initiatives, asserting, "I like to think that I bring a nice diversity to any position. Having worked in

education, engineering, business development, and management, it provides me a variety of angles to solve problems, establish processes, and so on."

In his spare time, Nate enjoys all types of music and enjoys reading. However, it doesn't sound like he spends too much time on the couch. As fit as any man half his age, Nate used to train in mixed martial arts (MMA), and now works at boxing, plyometrics and strength training. He loves competitive sports, adding, "I used to play goalkeeper in football/soccer in college, then later in city leagues in the USA and Mexico." At KAUST, Nate offers his expertise to anyone up for the challenge, providing physical training, strength training and conditioning. □

Haizhou Yu and Dr. Xiaoyan Qiu.

"For me, the most interesting thing with this experiment, is that when most people reach a point in the results when they think this is not what is expected, they will stop. But Haizhou Yu and Xiaoyan Qiu didn't stop. They are the type

DIVERSITY | Continued on p5

كلابوس فيكتور بينيمان والدكتورة سوزانا نونيس، إضافة الى زملاء ما بعد الدكتوراه الدكتور هابنباو يو والدكتور زياويان كوي. ونشرت نتائج هذا البحث في ورقة بحثية في مجلة Nature Communication في شهر مايو الماضي. نتمه صفحة 5

Four KAUST faculty members were recently acknowledged in "Thomson Reuters Highly Cited Researchers 2014." Congratulations to KAUST researchers Dr. Jean M.L. Frecher, Dr.

HIGHLY CITED RESEARCHERS | Continued on p8