

# e-Newsletter

# Issue 3, 2017





## **Issues contain**

- Recent technologies
  - Awareness articles
- ORIC Activities Highlights
- Upcoming International Conferences



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#### **Editorial**

We are highly thankful to all the faculty members, who made our aim successful, lets come towards the second issue of ORIC e-newsletter. We appreciate and honor the decision of worthy Chancellor and Vice-Chancellor for establishing the ORIC at Jinnah University for Women.

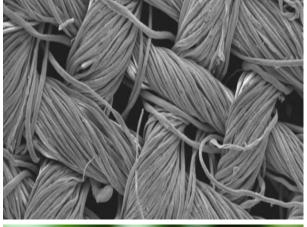
The team of ORIC is launching the second issue of a monthly e-newsletter to inform faculty and students about upcoming events, research funding opportunities, latest research projects and other university activities. In this issue, you will find the details of international conferences, innovative ideas to work on final year projects, informative articles and glimpse of latest technologies.

It has been proved that innovation is a constant exercise to dream, working for making it a reality and then dreaming again for something new. Nations which don't take risks or embrace the changes, fail to maintain their existence. We as Pakistanis, have the responsibility to work for national security in the field of science and technology, culture, arts and history. We are the generation of children of the flag bearers of independence, who successfully fought for their creation of Pakistan. Let's do it again, let's join hands together to hold the flag of innovative Pakistan.

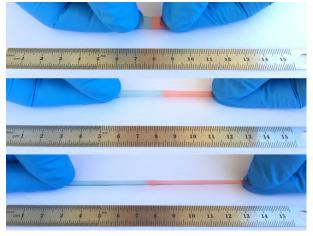
Long Live Pakistan.

## **AT A GLIMPSE!!**









# A Secure Model of IoT with Block chain:

JANUARY 05, 2017 | Article

The Internet of Things is a fast-growing, progressively multifarious network of connected devices. This excerpt from an Open Mind article touches on block chain as a way of securing this new ecosystem. **READ MORE AT:** <u>https://</u> <u>www.technologyreview.com/s/603298/a-secure-model-of-iot-with</u> <u>-blockchain/</u>

## Self-Cleaning Material Could Make Laundry a Thing of the Past:

November 15, 2016 | Article

Good bye washing machines!! Thanks to sunlight. Use of Nano-threads to create a fabric may reduce the use of washing machines because of their self -cleansing property. **READ MORE AT**: <u>http://</u> www.popularmechanics.com/technology/design/news/a20142/ self-cleaning-material-sunlight/

## Energy efficient street lamps are also mosquito traps:

January 13, 2016 | Article

Researchers at University of Malaya develop street lights powered by wind and solar, which attract and trap mosquitoes using a 'human' scent. **READ MORE AT:** <u>https://</u> www.springwise.com/energy-efficient-street-lamps-also-mosquitotraps/

## Scientists just invented a Smartphone screen material that can repair its own scratches:

### April 04, 2017| Article

The researchers conducted several tests on the material, including its ability to repair itself from cuts and scratches. After they tore the material in half, it automatically stitched itself back together in under 24 hours. **READ MORE AT:** <u>http://www.businessinsider.com/self-healing-cell-phone-research-</u> 2017-4

# SCIENTISTS CAN NOW CREATE GLASS FIGURINES WITH A 3D PRINTER

### April 27, 2017 | Article By Charles Q. Choi

Intricate glass creations such as miniature castles and tiny pretzels can now be fabricated using 3D printing, according to a new study. The technique could one day be used to manufacture lenses for Smartphone cameras as well as other key glass components.



Archaeological research suggests humans have employed glassmaking for millennia. The process typically requires hot furnaces and harsh chemicals. Recently, scientists have investigated whether they could sidestep these drawbacks using 3D printing.

A 3D printer is a machine that creates items from a wide variety of materials: plastic, ceramic, metal and even more unusual ingredients, such as living cells. These devices work by depositing layers of material, just as ordinary printers lay down ink, except 3D printers can also deposit flat layers on top of each other to build objects in three dimensions.

Until now, the only methods for shaping glass using 3D printing also required using a laser or heating the materials to searing temperatures of about 1,800 degrees Fahrenheit (1,000 degrees Celsius), the researchers in the new study said. In both cases, the end products were coarse, rough structures that were not suitable for many applications, the researchers added.

Now, scientists have developed a new technique to fabricate complex glass structures using a standard 3D printer. The secret, the researchers said, is something they call "liquid glass.

The scientists began with particles made of silica, the same material used to make glass. These particles were only 40 nanometers, or billionths of a meter, wide, which is about 2,500 times thinner than the average strand of human hair.

These silica nano particles were dispersed in an acrylic solution. The researchers could then use a standard 3D printer to fabricate complex items using this "liquid glass," the study said. Ultraviolet light could harden these objects into a kind of plastic similar to acrylic glass.

When these pieces of plastic were exposed to temperatures of about 2,370 degrees F (1,300 degrees C), the plastic burned away while the silica nano particles fused together into smooth, transparent glass structures, the study said. With the aid of additives, this technique can print colored glasses, tinted green, blue or red, for example, the researchers said.

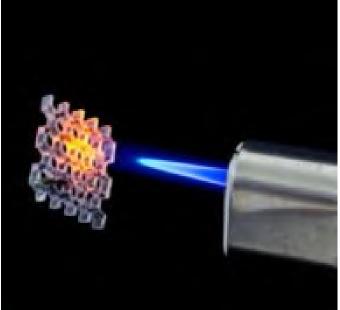
"Glass is one of the oldest materials that mankind has used, and it's still a high-performance material, and for many applications, the only choice of material," Rapp said. "What our research does is bridge a necessary gap between 21st-century manufacturing techniques and a material that's centuries old."

The commercial 3D printer the researchers used could print features as tiny as a few dozen microns. For comparison, the average human hair is 100 microns wide.

This new method does not require harsh chemicals, and it produces glass components smooth and clear enough for use as lenses and in other applications, the researchers said.

"You can think of creating tiny lenses for Smartphone cameras," Rapp said. "You can think about creating chemically and thermally resistant micro reactors made from glass that chemical reactions can take place in."

This new technique could also help create optical and photonics components for high-speed data transmission, Rapp said. (Photonic devices manipulate light just as electronic circuits manipulate electricity.) "You can also think much bigger, with 3D curved pieces of glass for architecture," Rapp s



This honeycomb structure printed in fused silica glass is exposed to a flame that is almost 1,500 degrees Fahrenheit (800 degrees Celsius).

Reference : http://www.livescience.com/58867-glass-figurines-created-with-3d-printer.html

# **BODY MASS INDEX**

Body Mass Index (BMI) is a person's weight in kilograms divided by the square of height in meters. A high BMI can be an indicator of high body fatness



To calculate BMI, you need to know your weight and height in kilo-grams and centimeters or meters. The weight of a person is then divided by the height. People of the same age and sex have different BMI depending on the amount of fat content

Formula of calculating Body Mass Index (BMI):

Weight of the body (kg)	
Height (cm)	J

Category	BMI range – kg/m <sup>2</sup>
Very severely underweight	less than 15
Severely underweight	from 15.0 to 16.0
Underweight	from 16.0 to 18.5
Normal (healthy weight)	from 18.5 to 25
Overweight	from 25 to 30
Obese Class I (Moderately obese)	from 30 to 35
Obese Class II (Severely obese)	from 35 to 40
Obese Class III (Very severely obese)	over 40

# WOMEN CAREER SHIP; OPPORTUNITIES AND CHALLENGES 24TH MARCH, 2017

ORIC, Jinnah University for Women and the Marketects club jointly initiate to organize the event related to women day. The objective of event was to celebrate women days and to bridge the gap between academia and industries and to help the fresh grads to step into the professional world.



Sir Ansaruddin Syed while starting the session



Anum Shakeel had interesting and lively fireside chat with Sara Khurram (CEO-Sehat Kahani).

The event further proceeded with the panel discussion. Panelist Ms. Shanaz Ramzi (CEO Starlinks), Ms. Saba Khalid (founder and CEO-Auraj Raaj), Ms. Saeeda Bano (President Women chamber of commerce and industry) took active participation in discussion moderated by Dr. Rashida Rahmat Zohra (deputy director, ORIC-JUW). Dr. Rashida raised questions about women empowerment, careership and how to being a feminine to the panelist.





All guest speakers, ORIC interns and attendees of seminar

All the guest speakers were pleased to visit JUW and glad by the response of the audience, they also appreciated the efforts of ORIC, JUW and assured to server for women empowerment in collaboration of Jinnah University for women in future too.

# ONLINE WEBINAR (30-31MARCH, 2017)

ORIC, Jinnah University for women facilitated "An International Research Workshop on "QSR International Course Outline NVivo Fundamentals and Advanced Usage" on30-31 March, 2017 at university campus. The faculty members originated the workshop informative and worthwhile.

The audience of the webinar was faculty members of Jinnah University for women. The webinar was organized by Institute of Research and Promotions (IRP) where they also trained the contestants about writing a valuable literature review and the reduction of plagiarism. . Thereafter all the participants got imperative instructions on the usage of software for research writing.





# INTERNSHIP & JOB FAIR 2017 (17-18 FEBRUARY 2017)

Jinnah University for Women visited a mega Job Fair on the 17<sup>th</sup> & 18<sup>th</sup> February, 2017. This fair was organized by department of public administration, UoK.. With more than 90 companies in attendance, this fair brought together some of the biggest names in the industry.

All day students dropped their CV's and interacted with the various industry representatives to glean the all-important information about the market requirements from the students these days.



Job fairs provide students with the chance to meet employers face-to-face, to learn about current vacancies and opportunities available, and to market yourself to prospective employers. All fairs have several talks you can attend as well, about the sector and opportunities within it – and often the opportunity to get advice on your CV from professionals.

# SCHOLARSHIP PROGRAMS FOR PAKISTANI STUDENTS

## POSTGRADUATE SCHOLARSHIPS UNDER THAILAND INTERNATIONAL POSTGRADU-ATE PROGRAM (TIPP):

TIPP offers Postgraduate Scholarships in the field of "Sufficiency Economy, Climate Change, Food Security, Public Health and SDGS to the young students. The nomination must be submitted to HEC through respective Vice Chancellor/Rector latest by **30th April 2017**. **For more information visit:** <u>http://hec.gov.pk/english/HECAnnouncements/Pages/TIPP-Laspx</u>

### GOVERNMENT OF SRILANKA PRESIDENTIAL SCHOLARSHIPS PROGRAM FOR UNDER-GRADUATE:

Applications are invited from eligible students for the award of undergraduate scholarships offered by the Ministry of Higher Education and Highways (MoHEH), Sri Lanka for the academic year 2016/17 and the courses are to commence in November 2017. Since this is a government to government scholarship program, candidates shall apply for this scholarship with the recommendation of the government nominating agency (i.e. Ministry or the government Institution of his/her country). The dead line for this scholarship application is **08-05-2017**.

### For more details visit:

http://hec.gov.pk/english/HECAnnouncements/Pages/GSPS.aspx http://www.mohe.gov.lk/images/pdf/scholarshipnotice2017intakenew.pdf

### INDONESIA KNB SCHOLARSHIP PROGRAM FOR ACADEMIC YEAR 2017

The Ministry of Research, Technology, and Higher Education of the Republic of Indonesia is pleased to announce the continuation of the Kemitraan Negara Berkembang (KNB) scholarship program to support students from developing countries to get their master degree in Indonesian Universities. These awards will be made for the 2017 - 2018 academic year through the Directorate General of Science, Technology, and Higher Education's 2017 budget year funding

### For more details visit: <u>http://www.knb.dikti.go.id/</u> <u>http://hec.gov.pk/english/HECAnnouncements/Pages/Indonesia-KNB-Scholarship.aspx</u>

## INTERNATIONAL AMBASSADOR SCHOLARSHIPS AT UNIVERSITY OF WEST

The International Ambassador Scholarship recognizes and provides financial support for outstanding students who wish to act as ambassadors for the University of West London. Any fulltime undergraduate or postgraduate course at the University of West London, The deadline for scholarship application is 16<sup>th</sup> July, 2017.

**For more details visit:** <u>http://www.scholars4dev.com/8119/international-ambassador-scholarships-university-west-london/</u>

## **CONFERENCES**

### 2<sup>™</sup> INTERNATIONAL CONFERENCE ON FOOD CHEMISTRY AND NUTRITION

We are delighted to welcome you to Vancouver for the prestigious 2<sup>nd</sup> International Conference on Food Chemistry and Nutrition. Food Chemistry will focus on the theme "Where food meets science: Exploring recent advances in food research and business". We are confident that you will enjoy the Scientific Program of this upcoming Conference. This conference going to held on July 24-26, 2017 at Vancouver, British Columbia, Canada.

**For more details visit:** <u>http://</u> <u>foodchemistry.conferenceseries.com/</u>

### **3RD GLOBAL SUMMIT ON PLANT SCIENCE**

Conference Series LLC invites participants from all over the world to attend "3rd Global Summit on Plant Science" during August 07-09, 2017 Rome, Italy which includes prompt keynote presentations, Oral talks, Poster presentations Young Research Forum and Exhibitions.

Why to attend: With members from around the world focussed on learning about Plant Science and its advances; this is your best opportunity to reach the largest assemblage of participants from the Plant Science and Agriculture community.

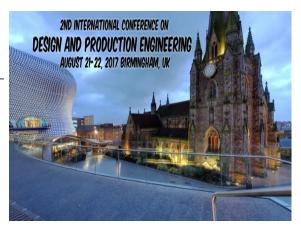
For more details visit: http://plantscience.global-summit.com/

### 2<sup>ND</sup> INTERNATIONAL CONFERENCE ON DESIGN AND PRODUCTION ENGINEERING

Conference Series LLC cordially invites all the participants to attend "2nd International Conference on Design and Production Engineering" during August 21-22, 2017 at Birmingham, UK. This Design and Production 2017 serves as a platform for international exchange of ideas, collaborations and cooperation. It is anticipated that a wide-ranging of research and applied topics of Engineering will be covered during the conference.

For more details: <u>http://design-</u>production.conferenceseries.com/









### WORLD CONGRESS ON EDUCATION

The World Congress on Education (WCE-2017) is an international refereed conference dedicated to the advancement of the theory and practices in education. The aim of World Congress on Education is to provide an opportunity for academicians and professionals from various educational fields with cross-disciplinary interests to bridge the knowledge gap, promote research esteem and the evolution of pedagogy. The WCE-2017 invites research papers that encompass conceptual analysis, design implementation and performance evaluation. **Early Bird Registration** will be available till the **10th of May 2017** 

#### Who should attend the WCE?

The WCE attracts experts from all educational sectors, schools, colleges, universities, vocational education and training, as well as government representatives, non-governmental organization staff and private providers to learn

- networking with national and international participants.
- Develop new partnerships and associations with key decision makers across all sectors of education. And Learn about the latest research findings and the future impacts by attending the programmed sessions.

For further details visit: <u>http://worldconedu.org/</u>

## CONFERENCE ON NUCLEIC ACIDS, MOLECULAR BIOLOGY & BIOLOGICS CONFERENCE

Conference Series LLC is pleased to invite the contributors across the globe on its "2nd International Conference on Nucleic Acids, Molecular Biology & Biologics Conference" which is slated at Philadelphia, USA. during August 31-September 01, 2017.2nd International Conference on Nucleic Acids, Molecular Biology & Biologics Conference (Nucleic Acid-2017) provides a premier platform to present and discuss fundamental discoveries in nucleic acids biology, which have impacted nearly every facet of biology with wide ranging implications for human health.



For more details: http://nucleicacids.conferenceseries.com/

## FIFTH INTERNATIONAL CONFERENCE ON AEROSPACE SCIENCE & ENGINEERING-2017

Institute of Space Technology (IST) Islamabad, Pakistan is going to organize the Fifth International Conference on Aerospace Science & Engineering (ICASE 2017) from November 14-16, 2017.

ICASE 2017 is a regular biennial event and an international forum in which scientists, engineers, researchers, professionals and students from all over the world would get a chance to interact and discuss the latest themes and trends related with aerospace science and engineering. It provides a platform to share experiences, foster collaborations across industry and academia, and to evaluate emerging aerospace technologies and developments across the globe.

For further details visit: http://www.ist.edu.pk/icase http://hec.gov.pk/english/news/events/Pages/ICASE-2017.aspx

