

VIBRANCE

DECEMBER 2014, Vol. 7, Issue 12

Monthly E-magazine of Dept. of I.T, I.T.S, Mohan Nagar, Ghaziabad

In this Issue!

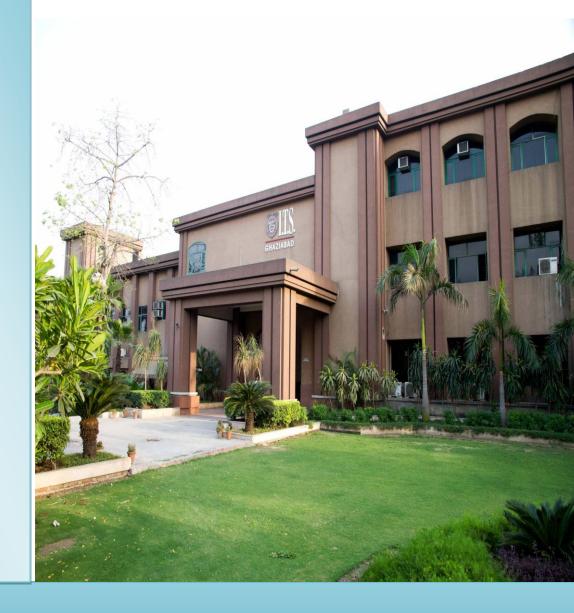
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How bioprinting works and where it is headed in the near future?

Using living cells to 3D print organs may sound far-fetched, but it's happening. Bioprinting is quickly gaining traction. The healthcare industry is trying to capitalize on 3D printing, and fast. From prosthetic limbs and various surgical devices made with plastics and metals, to using cells to print human organs, experiments in this industry are progressing quickly.

The world of bio-printing is still very new and ambiguous. Many of the innovations have been driven by either companies like Organovo that focus on bioprinting or specific researchers at universities, like Dr. Anthony Atala at Wake Forest.

Let us see how bioprinting works and where it is headed in the near future.

1. CT scans can function like a CAD design

Instead of trying to create an organ or tissue model from the ground up, researchers and engineers can use a CT scan or MRI to create a 3D model to print. For example, the University of Louisville, when creating a 3D printed model of a young boy's heart so doctors could use it for his surgery, the researchers used the CT scan from his doctor to make the 3D design model. Websites like Instructables even have tutorials to describe how to turn a CT scan into a 3D printable model to print.

2. There are multiple types of printers

Bioprinters: Organovo made the first commercially used bioprinter, called NovoGen MMX, which is the world's first production 3D bioprinter. The printer has two robotic print heads. One places human cells and the other places a hydrogel, scaffold, or other type of support.

"Inkjet" inspired printers: Experiments with bioprinting at Wake Forest University were inspired by traditional inkjet printers. The printer allows multiple cell types and components to be used for printing. In early forms of the technology, cells were placed in the actual walls of ink cartridges and the printers were programmed to place the cells in a particular order.

3. Stem cells are also used in bioprinting

Stem cells can adapt easily to tissues, so they are an attractive option for bioprinting different organs and bones. Researchers at the University of Nottingham in the UK experimented with building bone replacements coated with stem cells that develop into tissues over time. The researchers said development of stem cell repair for complex tissues, like those that make up the heart or the liver. It's difficult to use stem cells to build these organs, but it may be possible with 3D bioprinting.

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Few things you shouldn't expect big data to do

Every organization pursues big data with high hopes that it can answer longstanding business questions that will make the company more competitive in its markets and better in the delivery of products and services. Here are some of the key things that big data in itself won't do for you unless you take the right steps to optimize its value.

1: Solve your business problems

Big data doesn't solve business problems. People do. Only those organizations that sit down and decide what they want to get out of their big data before they start working with it are going to reap the caliber of business intelligence they are looking for.

2: Help your data management

IBM claims that 2.5 quintillion bytes of data are being generated daily. Most of this is big data. Unsurprisingly, the amount of data under management in companies around the world has grown exponentially, too. As the data piles up without clearcut data retention and usage policies (especially for big data), organizations are struggling to manage it.

3: Ease your security worries

For many companies, determining security access for big data is still an open item. This is because security practices for big data aren't as defined as they are for data that belongs to systems of record. We are at a point where IT should be working with end users to determine who gets access to which levels of big data and its corresponding analytics.

4: Address critical IT skill areas

Big data database management, server management, software development, and business analysis skills are in short supply. They add incremental burden to a core of critical IT skills that many IT departments already lack.

5: Diminish the value of legacy systems

If anything, legacy systems of record are more valuable than ever with big data. Often, it is these legacy systems that offer critical clues as to how to best dissect big data for analytics that can answer important business questions.

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Best Accredited CSI Student Branch Award to I.T.S, Mohan Nagar, Ghaziabad





I.T.S, Mohan Nagar, Ghaziabad is awarded with two National Awards

- "Best Accredited CSI Student Branch Award" and "Longest CSI Student Branch Coordinator Award" at 49th Annual Convention of CSI (Computer Society of India - An Apex body of IT Professionals & Academicians) held during 12th to 14th December, 2014 at Jawaharlal Nehru Technical University, Hyderabad.

These awards were given by Shri. H.R. Mohan – President, CSI, Prof. Bipin V. Mehta - Vice President - CSI, Shri. Sanjay Mohapatra - Hon. Secretary - CSI, Shri. Ranga Rajagopal - Hon. Treasurer - CSI and Past President Prof. S.V. Raghvan.

Dr. Rabins Porwal of Department of I.T was also awarded as Longest Student Branch Coordinator. This has become possible due to the consistent quality of our IT events & participation of external participants including - Consistency in organizing events, which Department of I.T. have been organizing at the institute in association with CSI Regions, Divisions, Chapter and at the institute level Club Activities, like I.T.S Young Talent Hunt event, Conferences, Seminars, Club Activities, which have got place in CSI Communications and Annual Reports too.

Happening @ Dept. of I.T. in the month of December, 2014

SANSMARAN-I.T.S Alumni Meet was organized on 6th December, 2014 at I.T.S, Mohan Nagar, Ghaziabad

Inaugural Ceremony of SANSMARAN- I.T.S Alumni Meet at I.T.S, Mohan Nagar, Ghaziabad on 6th December, 2014









SANSMARAN – **2014,** The I.T.S Alumni Meet – 2014, was formally inaugurated by lamp lighting by Shri. Arpit Chadha, Honorable Vice Chairman – I.T.S The Education Group, Shri. B.K. Arora, Secretary - I.T.S The Education Group, Shri Sunrender Sood – Chief Administrator, I.T.S The Education Group. On this occasion, Director Management, Principal - UG Campus and Head of Department (IT) were also present.

Happenings @ Department of I.T in the month of December, 2014

SANSMARAN-I.T.S Alumni Meet was organized on 6th December, 2014 at I.T.S, Mohan Nagar, Ghaziabad

Cultural Program @ SANSMARAN-2014, I.T.S Alumni Meet at I.T.S, Mohan Nagar, Ghaziabad













Happenings @ Department of I.T in the month of December, 2014

SANSMARAN-I.T.S Alumni Meet was organized on 6th December, 2014 at I.T.S, Mohan Nagar, Ghaziabad

Lucky draw winners @ SANSMARAN-2014, I.T.S Alumni Meet at I.T.S, Mohan Nagar, Ghaziabad









Lucky Draw based on the visiting cards dipped by the Alumni at the time of their Registration, from all courses were announced. Mr. Vinay Singhal, MCA (1997-2000), Mr. Rahul Kant Dwivedi, MCA (2006-2009), Ms. Nidhi Kapur, MIT (1999-2001) and Mr. Vinit Dhall, MIT (1999-2001) were the winners of IT Alumni Lucky Draw.

All the winners were awarded with a token of rememberance.



Solution of Last Placement Quiz Series

- 1. The **GET** command is used to read the contents of the SQL buffer.
- 2. The / command is used to execute the current command in the line **SQL buffer**
- 3. Views are created by defining the SELECT statement(T/F) **True**
- 4. In Oracle, you cannot create an index on more than one column of a database table. (T/F) False
- 5. In Oracle, you can store date values into the column having the **DATE** data type.
- 6. You can use the <u>&</u> statement with <u>INSERT</u> statement to perform multiple insertions in tables.
- 7. **CURRVAL** returns the current value of a sequence.

Announcement and Contact Details

VIBRANCE is an E-magazine of Department of I.T, I.T.S, Ghaziabad. We look forward to the contribution from our students, alumni, faculty members and industry experts.

Contributors are advised to send their contribution to our editorial team at:

Faculty Advisor:

Prof. Puja Dhar pujadhar@its.edu.in

Student Editors:

Atul Rai-MCA-2nd yr. atulrai.lt2014@its.edu.in rahulpant-lt2014@its.edu.in

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