**Earthquake in Nepal**

By– Keshav Mehrotra (ECE– Second Year)

This year’s April month proved to be much devastating for Nepal. 25th April, 2015 was marked as a doom day for Nepal. A quake of 7.8 on Richter scale struck the lands of Nepal at 11:56 a.m. NST. Its epicenter was east of the district of Lamjung and its hypocenter was at a depth of approximately 15 km. Continued aftershocks occurred throughout Nepal within 15-20 minute intervals whose waves were felt in the major part of north east India including eastern UP and Bihar. Statistics stated that about 8800 people lost their lives in this tragedy but the number is supposed to me much higher in real.

The earthquake triggered an avalanche on Mount Everest, killing at least 19, making it the deadliest day on the mountain history. Hundreds of thousands of people were made homeless with entire villages flattened, across many districts of the country. The country also had the continued risk of landslides. A major aftershock occurred on 12 May 2015 at 12:51 NST with the moment magnitude of 7.3. This shock supposed to be the last straw on the camel’s back. The mere movement of the tectonic plates served as a demonic act to the country of Nepal. World’s highest peak Mount Everest is not the topper anymore.

Those dismal sights cannot be poured into this writing keeping in view the damage caused by this demon to the people of Nepal. Various rescue operations by many countries were held to assist Nepal to overcome this mishap. Within minutes of the earthquake, the Government of India via the Indian Armed Forces, initiated operation Maitri. It is a humanitarian mission with the primary objective of conducting relief and rescue operations in Nepal. China and the United States funded helicopters as requested by the Nepali government. Numerous charitable organizations such as UNICEF and Doctors Without Borders, are delivering aid on the ground. Israel provided a large team of people to the relief effort in Nepal, second only to India.

Although the countries of China, Bangladesh and India also endured the losses of lives and property, but the gloominess of Nepal cannot be even compared to these. By the same afternoon, ten teams from India’s National Disaster Response Force (NDRF), a total 450 personnel and including several search and rescue dogs, had already arrived in Nepal. Ten additional Indian Air Force planes soon departed to join them with further aid. In the immediate aftermath of the quake, India sent 43 tons of relief material, including tents and food.

The Indian Air Force evacuated over 500 citizens from Nepal late Saturday through Sunday morning, and hundreds more on Sunday. Prime Minister Modi vowed to wipe the tears of every person in Nepal in his Mann Ki Baat address to the nation. An Indian mountaineering team recovered the bodies of 19 mountaineers from Everest base camp and rescued at least 61 stranded climbers from Mount Everest. Indian army also brought with them oxygen cylinders for distributing them to the medical teams. The Indian government sent teams of senior executives and engineers from state-run energy companies to Nepal in order to restore power lines and ensure uninterrupted fuel supply. By the end of Monday, approximately 5400 Indian citizens were evacuated from Nepal. 30 foreign nationals were also evacuated. The Indian Government received requests for help from many countries and took steps to evacuate their citizens to India.

We all pray in the name of God to give the people of Nepal strength, power and enough resources so as to recover from this calamity.
**Movie Review**

**Starring:** Kalki Koechlin, Revathi, Sayani Gupta  
**Director:** Shonali Bose  
**Ratings:** *****

Director Shonali Bose and lead actress Kalki Koechlin are on top of their respective games in *Margarita, With a Straw*, an offbeat drama that is both sensitive and provocative. The wonderfully well-scripted film (screenplay: Bose and Nilesh Maniyar) focuses on the most intimate physical and emotional needs of a woman with cerebral palsy. It delivers a poignant and uplifting portrait of an individual determined to live life to the lees despite all the odds she faces owing to her restricted motor skills. *Margarita, With A Straw* narrates its emotionally arresting and startlingly revelatory story without resorting to the mawkish or the preachy. Do not pass up a sip of *Margarita, With A Straw*. It could be life-altering. If nothing else, it will soak you with its warmth.

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**Open Debate Competition**

An Open Debate competition of inter branch of B.Tech Students held on 24.04.15. The Topic was, “Medium of instruction in primary education should be mother tongue?”

Total 36 students who were winners in their respective branches participated in this inter branch competition. The jury members of this event were Ms. Alka Verma, Asst. Prof., Dept. of EE & EN, Ms. Richa Saxena, Asst. Prof. Dept of CS & IT & Ms. Mukti Joshi, Asst. Prof. Dept of CH.

Winners were:
- **SAAD NADEE** IIIrd Year EE First
- **UDIT GUPTA** IInd Year ME Second
- **PARTH DHALL** IInd Year EC Third
- **SOMYA TRIVEDI** Ist Year EE Consolation
- **APRAJITA BATRA** IIIrd Year CS Consolation

Director General Prof. S. Mukherjee, Director Prof. Vineet Tirth and Registrar Dr. Manish Saxena were graced the occasion. Event was organized by Ms. Ruchi Varshney, Convenor, Open debate Competition & her team members.
Brain Organoids

By Niharika Verma (ECE 3rd Year)

A new method for growing human brain cells could unlock the mysteries of dementia, mental illness, and other neurological disorders.

As Madeline Lancaster lifts a clear plastic dish into the light, roughly a dozen clumps of tissue the size of small baroque pearls bob in a peach-colored liquid. These are cerebral organoids, which possess certain features of a human brain in the first trimester of development—including lobes of cortex. The bundles of human tissue are not exactly “brains growing in a dish,” as they’re sometimes called. But they do open a new window into how neurons grow and function, and they could change our understanding of everything from basic brain activities to the causes of schizophrenia and autism.

Before it grows in one of Lancaster’s dishes, a brain organoid begins as a single skin cell taken from an adult. With the right biochemical prodding, that cell can be turned into an induced pluripotent stem cell (the kind that can mature into one of several types of cells) and then into a neuron. This makes it possible to do things that were impossible before. Now scientists can directly see how networks of living human brain cells develop and function, and how they’re affected by various drug compounds or genetic modifications.

And because these mini-brains can be grown from a specific person’s cells, organoids could serve as unprecedentedly accurate models for a wide range of diseases. What goes wrong, for example, in neurons derived directly from someone with Alzheimer’s disease?

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And because these mini-brains can be grown from a specific person’s cells, organoids could serve as unprecedentedly accurate models for a wide range of diseases. What goes wrong, for example, in neurons derived directly from someone with Alzheimer’s disease?

The prospect of finding answers to such questions is leading pharmaceutical companies and academic researchers to seek collaborations with Lancaster and Jürgen Knoblich, whose lab at the Institute of Molecular Biotechnology (IMBA) in Vienna, Austria, is where Lancaster developed the organoids as a postdoc. The first of these collaborations was an investigation of microcephaly, a disorder characterized by small brain size, with Andrew Jackson of the University of Edinburgh. Using cells derived from a patient with microcephaly, the team cultured organoids that shared characteristics with the patient’s brain. Then the researchers replaced a defective protein associated with the disorder and were able to culture organoids that appeared partially cured.

This is just the beginning, says Lancaster. Researchers such as Rudolph Jaenisch at MIT and Guo-li Ming at Johns Hopkins are beginning to use brain organoids to investigate autism, schizophrenia, and epilepsy. What makes cerebral organoids particularly useful is that their growth mirrors aspects of human brain development. The cells divide, take on the characteristics of, say, the cerebellum, cluster together in layers, and start to look like the discrete three-dimensional structures of a brain. If something goes wrong along the way—which is observable as the organoids grow—scientists can look for potential causes, mechanisms, and even drug treatments.

The breakthrough in creating these organoids happened as part of a side project. Other researchers had grown neurons in a dish before, and like them, Lancaster started by using a flat plate to “play” with neural stem cells—the kind that form into neurons and other cells in the nervous system. Sometimes, she says, “I’d get neural stem cells that wouldn’t really stay in 2-D, and they would kind of fall off the plate and they’d make 3-D clumps—and rather than ignoring them or throwing them away, I thought, ’Those are cool—let’s see what happens if I let them keep growing.’” But there was a major challenge: how to keep the tissue at the center of the organoids fed without the benefit of veins. -Lancaster’s solution was to encapsulate each organoid in a matrix known to nurture cells, put a dozen of these blobs in a nutritious bath, and shake or spin it all to keep the organoids awash in cellular food. Since publishing her method, Lancaster has pushed the brain tissue to further levels of complexity with neurons at later stages of development. The number of possible applications grows with each advance. Most tantalizing to Lancaster herself is the prospect that cerebral organoids might solve the deepest of mysteries: what happens in our brains to set us apart from other animals? “I’m mainly interested,” she says, “in figuring out what it is that makes us human.”
“You don’t always need a plan. Sometimes you just need to breathe, TRUST, let go and see what happens.”

G.K. Quiz

By– Anmol Goel (CS– 3rd Year)

1. Novak Djokovic defeated which player to win the BNP Paribas Open Tennis title 2015 recently?
   A) Roger Federer  B) Andy Murray  
   C) Rafael Nadal  D) Stanislas Wawrinka

2. Who recently became the first Sri Lankan to receive the highest military rank of Field Marshal?
   A) Krishantha de Silva  B) Daya Ratnayake
   C) Jagath Jayasuriya  D) Sarath Fonseka

3. Who among the following was recently inducted as life president of the Asian Athletics Association?
   A) Narayan Ramachandran  B) Rajinder Singh
   C) Suresh Kalmadi  D) Lalith Soori

4. Railway has recently hiked the cost of platform tickets from Rs.5 to Rs....?
   A) Rs.10  B) Rs.8  C) Rs.9  D) Rs.15

5. Government has recently setup a task force to define poverty and prepare a roadmap to alleviate it. This task force is headed by?
   A) Arun Jaitley  B) K M Mani
   C) Y V Reddy  D) Arvind Panagariya

Answers

Sudoku

By– Anmol Goel (CS– 3rd Year)

Monthly Health Tips

By– Niharika Verma (ECE 3rd Year)

1. **Asthma-friendly sports:** Swimming is the most asthma-friendly sport of all, but cycling, canoeing, fishing, sailing and walking are also good, according to the experts.

2. **Sunscreen can be a smokescreen:** Sunscreen is unlikely to stop you from being sunburned, or to reduce your risk of developing skin cancer. That’s because most people don’t apply it properly, and stay in the sun too long.

Websites an Engineer Must Know..

By– Prachi Saxena (ECE 3rd Year)

- **NCEES**
  [http://ncees.org/@NCEES](http://ncees.org/@NCEES)

- **EMPORIS**
  [http://www.emporis.com/@Emporis](http://www.emporis.com/@Emporis)
Bhopal

Bhopal is the capital of the Indian state of Madhya Pradesh. Bhopal is also known as the Lake City for its various natural as well as artificial lakes and is one of the greenest cities in India. Modern Bhopal is a place where one can see the richness of tradition is intertwined with the modern life. The remnants of the glorious past live on in the havelis, grand mosques and the museums. A cradle of arts and culture, Bhopal provides numerous centers of contemporary and performing arts. Bhopal is a hub of the folk and tribal arts that give a feel of village life in the state. Besides all these, Bhopal is acclaimed for the famous cave paintings, which are not only valuable for their artistic values but also for their ethnicity.

Bhopal is an important economic, industrial, educational and political center of the State as well as Central India and houses various institutions and installations of state as well as some of national importance.

Various places to visit in Bhopal are:

**Bharat Bhavan:**
Bharat Bhavan is a multi-arts complex without parallel in Bhopal, India housing a museum of the arts, an art gallery, a workshop for fine arts, a repertory theater, indoor and outdoor auditoria, rehearsal room, and libraries of Indian poetry, classical and folk music providing interactive proximity to the verbal, the visual and the performing arts. It is a place for contemporary articulation, exploration, reflection and innovation.

Bharat Bhavan consists of Roopankar (Museum of fine arts), Rangmandal (A repertory), Vagarth (A centre of Indian poetry), Anhad (A library of classical and folk music), Ashram etc.

**Bhimbetka Rock Painting:**
If you wish to travel further into history, the prehistoric era take time off to make an excursion to Bhimbetka an archaeological treasure house. Hemmed in by the northern fringe of the vindhya ranges, Bhimbetka lies 46 Kms. South of Bhopal. The rocky terrain of dense forest and craggy cliffs has over 600 shelters belonging to the Neolithic age. They had a vivid, panoramic detail, painting in over 500 caves depicting the lives of pre-historic cave dwellers. This invaluable chronicle on the history of man, should not be missed. You can enjoy the paintings depicting everyday events of our ancestors like scenes of hunting, dancing, horse and elephant riding, household scenes, honey collection, animal fighting scenes etc.

**Birla Museum:**
Birla Museum is located at Vallabh Bhavan in Bhopal. It was established in 1971. The Museum contains Stone sculptures, Prehistoric elements of Paleolithic to Neolithic ages, terracotta, coins, manuscripts, paintings and plaster casts etc. Some elements of Harappan and Mohanjodaro civilization and Sunga, Kushana, Gupta period are also preserved there.

**Birla Temple:**
The Lakshmi Narayan Temple, also called Birla Temple (due to the hand of one of the most influential industrial families in India) commands a panoramic view of Bhopal, located on Arera Hills. The temple is built in the honour of Goddess Lakshmi, the Hindu Goddess of wealth and her divine consort, Lord Vishnu, the preserver of the universe, known as Narayana. Apart from the idols of Goddess Lakshmi and Lord Vishnu, the temple also has a dazzling idol of a reposing Lord Shiva with his wife, Goddess Parvati.

Attached to the temple at Bhopal is the Birla Museum that houses a collection of sculptures from the Mandsaur, Shahdol, Sehore and Raisen districts of Madhya Pradesh. The collection dates back to the 12th century era of the Paramaras when the art and culture prospered in the state. The sandy-yellowish temple has an old-worldly charm about it, with a huge turret on one side of the building. As one enters the temple through a glorious archway, the sprawling lawns lend it a pretty appeal.