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From the Editors

One machine can do the work of fifty ordinary men.
No machine can do the work of one extraordinary man.

– Elbert Hubbard

Technical education includes both theoretical as well as practically skilled knowledge that permit engineering product manufacturing and problem solving for the betterment of the society. India is one of the largest producers of Engineers in the world. The serious problem is that only 7-8 % of them are skilled and employable. The challenges of today's engineering education are mainly due to proliferating institutions with not enough teaching faculty, poor interaction between industry and classroom etc., added to these, the hotch-potch situation created due to freakiness amongst students regarding the future plans owing to competitive exams, jobs, higher studies, etc. The engineering aspirants must be focused to basic concepts, have the habit of reading good books and working hard to be successful in their career rather than to waste time making dubious efforts.

Laurels

- Exemplary performance of Sunil Kumar and Rishabh Jain of 8th sem in GATE 2017 with AIR 156 and 357 respectively.
- Aman Gupta, Taab Wasim Qureshi, Jyotsna Katiyar, C Venkata Srikar, Harsha Nashine, Pooja Dixit of 8th sem qualified in CAT 2016
- Aditi Sahu secured the overall Topper position (up till 7th Sem)
- Eight Students were selected in campus drive for various companies namely TCS, TELE.N/SOPUTION (TNS), TRIANGLE TELE INCORPORATION, TECH MAHINDRA
- Harsha Nashine qualified in TOEFL IBT and GRE exams
- Snigdha Verma qualified in MAH-CET 2017
- J SUJATHA(6TH SEM)- Cleared round 1&2 OF CDQ ORGANIZED BY IIT BHU, 1ST POSITION IN OJAS SPORTS(CHESS)
- PRADEEP BAURAI(6TH SEM)-CLEARED ROUND 1&2 OF CDQ ORGANIZED BY IIT BHU.

INSIDE THIS ISSUE

- 1 Snippets
- 2 Accolades
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- 4 Perhaps the biggest advancement in Neuro-Science

Snippets

Did You Know?

"The First Computer mouse was Invented by Doug Engelbart in around 1964 and was made of wood."

- i. *Analog Devices* has introduced a pair of gallium nitride (GaN) power amplifier (PA) modules. Both are intended to be used between 2 and 6GHz in test, measurement, communications, radar, surveillance and to replace travelling wave tubes.
- ii. *Renasas* has announced a chip for forward facing cameras in automata driving driver assistance systems. The chip, called 'R-Car V3M' is built around an ARM Cortex -A53 processor.
- iii. The VTS-Box by **WayCon Positionsmesstechnik** is a signal conditioner, specially developed for sensors, that use a potentiometer as sensor element. It improves the sensor's resolution and increases the measurement efficiency.
- iv. A new class of semiconductor materials has been pioneered that might enhance the functionality of optoelectronic devices and solar panels - perhaps even using one hundred times less material than the commonly used silicon.
- v. Materials researchers at Georgia Institute of Technology have created a nanofiber that could help enable the next generation of rechargeable batteries and increase the efficiency of hydrogen production from water electrolysis.
- vi. *Infineon* will be selling the fifth generation of its stand - alone quasi-resonant Flyback controller and integrated power IC. The ICs are especially designed for AC/DC switch mode power supplies in a great variety of applications such as aux Power for home appliances, server, and industrial SMPS.
- vii. Scientists at a branch of The Walt Disney Company called Disney Research have converted an entire room into a wireless charger that can boost the batteries of 10 objects at one time.
- viii. The robotic drawing arm was designed by a team of researchers, who combined their knowledge of kinetic art, drawing machines and internet-connected microprocessor chips to develop the idea.
- ix. ZTE, the Chinese manufacturer known mostly for its low-cost Android smart phones, announced its first wearable for the U.S market. It's a smartwatch called Quartz and it runs Android wear 2.0.

KNOWLEDGE = CREATIVITY + RIGHTEOUSNESS in Heart + COURAGE

By Rakesh Anand, 4th sem

Learning gives you CREATIVITY,

Creativity leads to thinking.

Thinking provides knowledge.

Knowledge makes you great...

When there is RIGHTEOUSNESS in Heart, there is beauty in the character.

When there is beauty in the character, there is harmony in home.

When there is harmony in home, there is order in the nature.

When there is order in the nature, there is peace in the world...

COURAGE to think different,

COURAGE to invent,

COURAGE to travel with our hundred fold path,

COURAGE to discover the atmosphere,

COURAGE to compact the problems and succeed

Are the unique qualities of the youth...?

As the youth of the nation, I work with courage and achieve success in all the missions...

Accolades

BIT DURG
Ranked in
Engineering
Rank-band:
151-200

BIT Durg is the
only Institution
of Chhattisgarh
Swami
Vivekananda
Technical
University
(CSVTU)

Ranked by
MHRD NIRF

PERHAPS THE BIGGEST ADVANCEMENT IN NEUROSCIENCE

Sheetal Prasad, 5th Sem

The next revolution in medicine just might come from a new lab technique that makes neurons sensitive to light. The technique, called [optogenetics](#), is one of the biggest breakthroughs in neuroscience in decades. It has the potential to cure blindness, treat Parkinson's disease, and relieve chronic pain. Two Americans hailed as inventors of optogenetics, Karl Deisseroth at Stanford University and [Ed Boyden](#) at the Massachusetts Institute of Technology have collected tens of millions in grants in recent years. There's only one problem with this story:

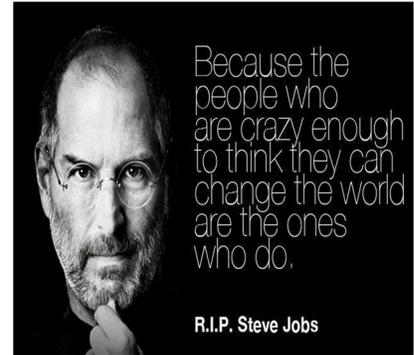
It just may be that Zhuo-Hua Pan invented optogenetics first.

Pan, 60, is a vision scientist at Wayne State University in Detroit who began his research career in his home country of China. Channelrhodopsin, a protein made by green algae, responds to light by pumping ions into cells, which helps the algae search out sunlight. By February 2004, he was trying channelrhodopsin out in ganglion cells — the neurons in our eyes that connect directly to the brain — that he had cultured in a dish. They became electrically active in response to light. In July 2004, Pan dosed his first rat with the virus. About five weeks later, he looked at the retinas to see if it had worked. What he saw was a sea of green — thousands of ganglion cells had the green protein coupled to channelrhodopsin in their membranes. And when he stuck an electrode in one of those cells and turned on a lamp, the cell responded with a flurry of electrical activity. The channelrhodopsin was working. It was just a first step, but it was a revolutionary step — indicating that Pan's method may just be able to restore sight to the blind. Today he's still in Detroit. He's been working on new versions of channelrhodopsin that could be used to cure blindness

RIDDLE

Can you arrange four 7's and with the use of at most two math symbols, make the total be 100?

Answer
77/.77



CONUNDRUM

1	+	5	=	12
2	+	10	=	24
3	+	15	=	36
5	+	25	=	??

Answer in the next issue
Answer of previous: 16

AMAZING FACTS!

1. The oceans contain enough salt to cover all the continents to a depth of nearly 500 feet.
2. 60-65 million years ago dolphins and humans shared a common ancestor.
3. We can produce laser light a million times brighter than sunshine.
4. At over 2000 kilometers long, The Great Barrier Reef is the largest living structure on Earth.
5. The average person accidentally eats 430 bugs each year of their life.

Answer to the crossword of previous issue

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S h o r t c i r c u i t
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  a
c o n d u c t o r
  a s
p i n s u l a t o r
  a s
c t h e r m i s t e r
i o
t r e s i s t o r
o
v a r i s t o r
  n
  P
  u
v o l t s
L D R
E
D
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  o
  c
  e
  s
  s
  w i t c h
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  j
  o
  i
  t
  f
  l
  o u t p u t
  x
  m
  s

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Vision

To impart education and transform students into competent professionals in Electrical and Electronics Engineering to excel in various challenges to serve society.

Mission

- To educate the students by inculcating vivid fundamental concepts and skills.
- To provide dynamic and disciplined environment with rich cultural, ethical and social sensitiveness.
- To equip the students to perform effectively as professionals in various fields of Electrical and Electronics Engineering.