



New Horizon College of Engineering celebrated the birthday of Hon'ble Executive Director's Mrs. Renuka Manghnani on December 23, 2015.

Qualities of an Engineer

Engineers are responsible for some of the greatest inventions and technology the world depends on. Everything from space shuttles to air conditioning systems to bridges requires the work of an engineer. To be successful in the field of engineering, one must have certain qualities. Some of those top qualities include:

1. Possesses a Strong Analytical Aptitude: A great engineer has excellent analytical skills and is continually examining things and thinking of ways to help things work better. They are naturally inquisitive.
2. Shows an Attention to Detail: A great engineer pays meticulous attention to detail. The slightest error can cause an entire structure to fail, so every detail must be reviewed thoroughly during the course of completing a project.
3. Has Excellent Communication Skills: A great engineer has great communication skills. They can translate complex technical lingo into plain English and also communicate verbally with clients and other engineers working together on a project.
4. Takes Part in Continuing Education: A great engineer stays on top of developments in the industry. Changes in technology happen rapidly, and the most successful engineers keep abreast of new research and ideas.

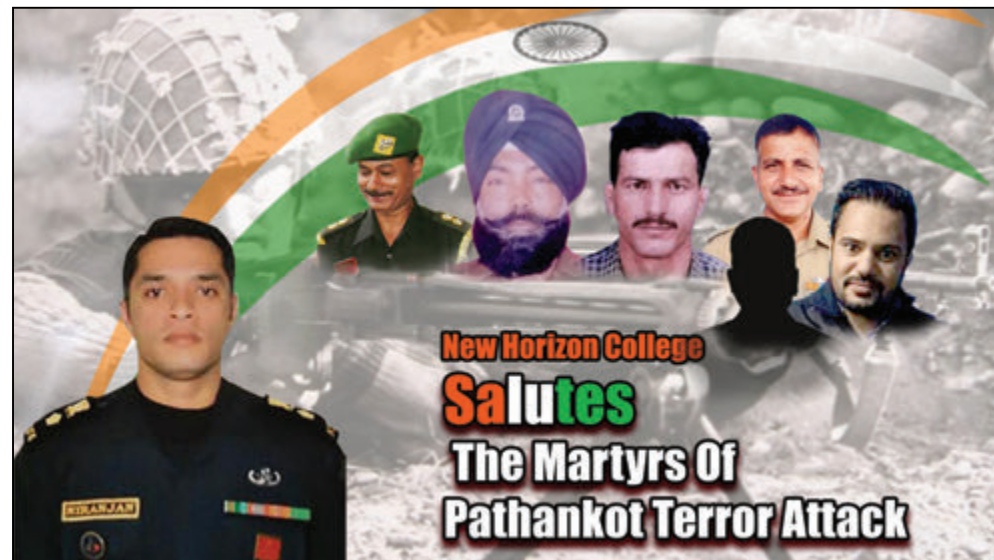


8. Has Good Problem Solving Skills: A great engineer has sharp problem solving skills. An engineer is frequently called

upon solely to address problems, and they must be able to figure out where the problem stems from and quickly develop a solution.

5. Is Creative: A great engineer is creative and can think of new and innovative ways to develop new systems and make existing things work more efficiently.
6. Shows an Ability to Think Logically: A great engineer has top-notch logical skills. They are able to make sense of complex systems and understand how things work and how problems arise.
7. Is Mathematically Inclined: A great engineer has excellent math skills. Engineering is an intricate science that involves complex calculations of varying difficulty.
9. Is a Team Player: A great engineer understands that they are part of a larger team working together to make one project come together successfully, and therefore, must work well as part of that team.
10. Has Excellent Technical Knowledge: A great engineer has a vast amount of technical knowledge. They understand a variety of computer programs and other systems that are commonly used during an engineering project.

'New Horizon Bytes' is for you and by you. Write-ups, photographs, illustrations and feedback are welcome from students and faculty of NHC-K, NHPUC, NHC-M, NHCE and NH B.Ed. Please make them brief (maximum 300 words) and e-mail to nhbytes@gmail.com



Jobs for Engineers 2016

Organization	Post Name - No of Vacancies	Last Date for Apply
CIDCO Maharashtra	Assistant Engineer(Civil, Electrical, Telecom) - 177	28/01/2016
HEC Limited	Management Trainee (Technical) - 105	12/02/2016
TSPSC	Group-II Posts - 750	25/01/2016 & 09/02/2016
MPCDF	Various Posts - 279	24/01/2016
NEEPCO	Trainee Engineer - 41	17/01/2016
BHEL	Engineer Trainees (Mechanical, Electrical, Electronics, Metallurgy) - 200	04/01/2016 to 01/02/2016
NTPC Limited	Engineer Executive Trainee - 177	05/01/2016 to 29/01/2016
NBCC	Management Trainees (Civil) - 32	30/01/2016
MDL	Executive Trainees (Mechanical, Electrical) - 35	01/02/2016
HPCL	Graduate Engineers	19/12/2015 to 02/02/2016
IOCL	Engineers / Officers	17/12/2015 to 07/02/2016

Netaji Subhash Chandra Bose

The Forgotten Hero



'Tum mujhe khoon do mein tumhe azadi doonga'

(You give me blood, and I promise you freedom).

There were many great heroes born at the time of the freedom movement, each with his own method of attaining Independence for India. One such hero was Subhash Chandra Bose, affectionately known as 'Netaji'. He was born on 23rd January 1897 in Orissa. Subhash Chandra Bose was one of India's greatest freedom fighter. He was the founder of the Indian National Army,

popularly known as 'Azad Hind Fauj'.

Bose was one of the most prominent leaders in the Indian independence movement and is a legendary figure in India today. He was an Indian revolutionary who led an Indian national political and military force against Britain. Bose advocated complete independence for India at the earliest. Netaji Subhash Chandra Bose, best known as the leader of Indian National Army, was a man who commanded respect. He believed that Gandhi's policies would never secure a fully independent Bharat. His life was full of mystery and adventure and indeed his death has been a major issue and created controversy from time to time.

"The greatest curse for a man is to remain a slave.

The grossest crime is to compromise with injustice and wrong.

The highest virtue is to battle against inequity, no matter what the cost may be."

- Netaji Subhash Chandra Bose

It is unfortunate that Netaji has been denied his rightful place in the Indian history and remains largely forgotten.

ANUJ KUMAR SAHU
 VII- SEM, B-SEC, ECE, NHC

Contributions to Society

Swachha Bharat Abhiyan	5 Crores
Blood Donation Camp	28th Feb ' 2015 MBA , NHCE
New Horizon Visits an NGO	25th Feb 2015, MCA, NHCE
Cancer Awareness Drive	29th April 2015 NHC , M
Earth Day Celebrations	22nd April 2015
Environment Day Celebrations	6th June 2015
Vanamahotsava Celebrations	8th July 2015
Swanthana Orphanage Visit	15th July 2015
Blood Donation Camp	15th July 2015 NHC,K
Blood Donation Camp	25th July 2015 NHC,M
Palliative Care	8th August 2015 NHC,M

Glimpses of 2015



Achievements-2015

Outstanding Entrepreneur Award 2015	Chairman
Outstanding Business School Award 2015	MBA,NHCE
VTU Rank Holders 2015	9 Rank Holders NHCE
VTU has accorded Autonomous Status to NHCE	
World Champions Make India Proud	June 2015 NHEI, School

Sports Achievements 2015

NHCE Men's Volley Ball Team emerged as Winners in IFIM Business School Inter-Collegiate Volley Ball Tournament

INTERNSHIPS FOR ENGINEERING STUDENTS IN 2016

Scientific Research
Phamax Analytic Resources
Location(s): Bangalore

Data Flow Graph Partitioning And Mapping Algorithm
Indian Institute Of Science (IISc) Bangalore
Location(s): Bangalore

Web Development
Kotak Securites
Location(s): Mumbai

UX Designer
Tata Elxsi
Location(s): Bangalore

Agricultural Engineering (Research)
Eicher Polaris Private Limited
Location(s): Jaipur., Nashik, Salem, Varanasi

Web & Android App Development (Winter Session)
IIT Bombay
Location(s): Mumbai

Technical Writing
Keysight Technologies
Location(s): Manesar

Web Design
Global Educates Pvt. Ltd.
Location(s): Gurgaon

Web Development
VirtusMinds Technolgies Pvt Ltd.
Location(s): Delhi

Android Development
Solipho Internet Private Limited
Location(s): Delhi

New Year Resolutions for Teachers

1. Stay Positive
2. Spice Up Your Classroom Routine
3. Build Fitness into Your Curriculum
4. Get Your Work/Life Balance in Order
5. Give Individual Time & Attention to Students
6. Get Organized – Work Smarter, Not Harder

7. Don't Let Admin & School Policies Get You Down
8. Plan Your Move Up the Payscale
9. Set Goals & Avoid Autopilot Mode
10. Get Students Involved/Empowered
11. Make Better Use of Planning
12. Dress to Impress Yourself
13. Open Forum

Keeping warm in winter

As soon as the winter approaches, we fill our wardrobe with knitted sweaters and more. But it is also important to keep our bodies warm from inside. Stock up on foods that will help beat the chill. The list of five foods that will keep you warm are

Ginger



Ginger reduces high cholesterol level and hence is the best choice to keep the body fit during winters. With its antibacterial properties, it is also helpful in treating cough and cold that is quite common during this season. It can be chewed raw daily or can be added to soup or any other dishes to enhance the flavour.

Honey



It is instrumental in combating cold, flu or cough during winter. Even if it is sweet, honey doesn't add calories and is also beneficial in keeping the body warm.

Nuts



A variety of nuts like peanuts, walnuts and almonds is the best source of good cholesterol, vitamins, fibres and Omega-3 fatty acids. They make for essential snacking during winters, as they are naturally hot food items.

Cinnamon



Cinnamon is a wonderful spice to shield you from the dipping temperatures. Add it to any cooked dish or to soup and salad to add flavour or use it while making warm beverages like tea.

Garlic



Its antibacterial properties keep one away from the common winter diseases like cold, cough and throat irritations. It keeps the cholesterol level in check, thus aiding good health during winters. One can have three to four garlic cloves daily or add it to cooked dishes for a flavoursome meal.

- Nethra .R, I MCA-NHCE

The World Needs a Carbon Tax

The world's leaders should institute a carbon tax to mitigate the worst effects of climate change and help shift the global economy away from fossil fuels and toward renewable energy, billionaire entrepreneur Elon Musk said.

The current lack of a carbon tax amounts to a hidden subsidy that incentivizes "bad behavior," Musk said here Tuesday (Dec. 15) at the annual fall meeting of the American Geophysical Union (AGU). "It's kind of like if we had high taxes on fruits and vegetables and low taxes on cigarettes and alcohol," said Musk, the founder and CEO of the private spaceflight company SpaceX. "That wouldn't make sense, but that's sort of what we have



carbon tax would reduce the effective error in the system of prices in the economy." Musk is working to reduce humanity's dependence on gas, oil and coal, which release heat-trapping carbon dioxide (CO₂) into the atmosphere when burned. Musk co-founded and helms the electric-car company Tesla Motors, and he also co-founded and serves as chairman of SolarCity, the United States' largest solar-power provider.

Not surprisingly, Musk is bullish on solar, viewing it as the chief energy source of the post-fossil-fuels future. "You could take basically a corner of Utah and Nevada and power the whole United States with solar power," Musk said. "So I think that's mostly how it will get solved." And that future dependency on renewable energy — with solar in the lead, but also featuring hydropower, nuclear energy

and other "green" sources — cannot come soon enough, Musk said.

Humanity will need to shift to a sustainable-energy economy at some point, because the world's accessible fossil fuels won't last forever, he noted. "The question is just when [the shift occurs], and how many billions of tons of CO₂ are in the atmosphere versus in the ground," Musk said. "Given that we know where we'll end up, which is a sustainable-energy economy, it seems like we should terminate this experiment as soon as possible."

- Nischal.S, I MCA-NHCE

Source: Elon Musk talks to Scripps Institution of Oceanography Director Margaret Leinen on Dec. 15, 2015, at the annual fall meeting of the American Geophysical Union, in San Francisco.

now with respect to energy, with very powerful forces trying to keep it that way." At heart, prices are just a form of information that "tell people what to do, and what things should be favored over another thing. And so when the prices are wrong, then the wrong thing happens in the economy," he added. "Any sort of

Tech Trends In 2016 & 2015



Technology is perhaps the greatest agent of change in the modern world. While never without risk, technological breakthroughs promise innovative solutions to the most pressing global challenges of our time. From zero-emission cars fuelled by hydrogen to computer chips modelled on the human brain, this year's 10 emerging technologies offer a vivid glimpse of the power of innovation to improve lives, transform industries

and safeguard our planet.

Trends in 2016

Bots

Algorithmic personality detection

Algorithms for design

Deep learning

Cognitive computing

Personality analytics

Glitches

Right to eavesdrop on and be eavesdropped upon

Drones

Virtual reality

Robots

Internet of X

Genomic editing

Trends in 2015

1. Fuel cell vehicles
2. Next-generation robotics
3. Recyclable thermoset plastics
4. Precise genetic engineering techniques
5. Additive manufacturing
6. Emergent artificial intelligence
7. Distributed manufacturing
8. 'Sense and avoid' drones
9. Neuromorphic technology
10. Digital genome

Quantitative Aptitude #1

Problems on Age

1. Ten years ago, P was half of Q's age. If the ratio of their present ages is 3:4, what will be the total of their present ages?
A. 45 B. 40 C. 35 D. 30

Answer: Option C

Explanation:

Let the present age of P and Q be 3x and 4x respectively.

Ten years ago, P was half of Q's age

$$\Rightarrow (3x - 10) = \frac{1}{2}(4x - 10)$$

$$\Rightarrow 6x - 20 = 4x - 10$$

$$\Rightarrow 2x = 10$$

$$\Rightarrow x = 5$$

$$\text{total of their present ages} = 3x + 4x = 7x = 7 \times 5 = 35$$

2. Father is aged three times more than his son Sunil. After 8 years, he would be two and a half times of Sunil's age. After further 8 years, how many times would he be of Sunil's age?
A. 4 times B. 4 times C. 2 times D. 3 times

Answer: Option C

Explanation:

Assume that Sunil's present age = x.

Then father's present age = 3x + x = 4x

After 8 years, father's age = 212212 times of Sunil's age

$$\Rightarrow (4x+8) = 212212(x+8)$$

$$\Rightarrow 4x + 8 = 5252(x + 8)$$

$$\Rightarrow 8x + 16 = 5x + 40$$

$$\Rightarrow 3x = 40 - 16 = 24$$

$$\Rightarrow x = 243243 = 8$$

After further 8 years,

$$\text{Sunil's age} = x + 8 + 8 = 8 + 8 + 8 = 24$$

$$\text{Father's age} = 4x + 8 + 8 = 4 \times 8 + 8 + 8 = 48$$

$$\text{Father's age/Sunil's age} = 48244824 = 2$$

3. A man's age is 125% of what it was 10 years ago, but 8313% of what it will be after 10 years. What is his present age?
A. 70 B. 60 C. 50 D. 40

Answer: Option C

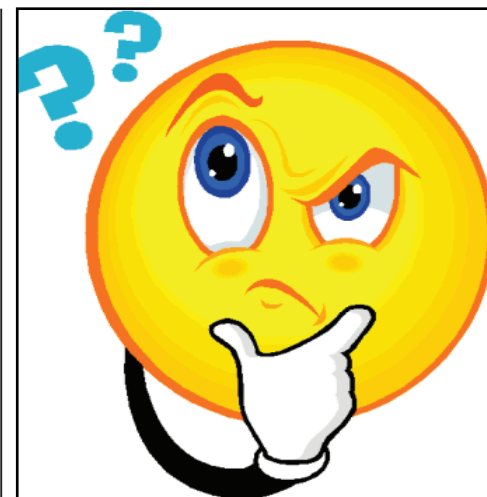
Explanation:

Let the age before 10 years = x

$$\text{Then } 125\% \times 100125\% \times 100 = x + 10$$

$$\Rightarrow 125x = 100x + 1000$$

$$\Rightarrow x = 100025100025 = 40$$



$$\text{Present age} = x + 10 = 40 + 10 = 50$$

4. A man is 24 years older than his son. In two years, his age will be twice the age of his son. What is the present age of his son?
A. 23 years B. 22 years C. 21 years D. 20 years

Answer: Option B

Explanation:

Let the present age of the son = x years

Then present age the man = (x+24) years

Given that in 2 years, man's age will be twice the age of his son

$$\Rightarrow (x+24) + 2 = 2(x+2)$$

$$\Rightarrow x = 22$$

5. Present ages of Kiran and Syam are in the ratio of 5 : 4 respectively. Three years hence, the ratio of their ages will become 11 : 9 respectively. What is Syam's present age in years?
A. 28 B. 27 C. 26 D. 24

Answer: Option D

Explanation:

Ratio of the present age of Kiran and Syam = 5 : 4

Let the present age of Kiran = 5x

Present age of Syam = 4x

After 3 years, ratio of their ages = 11:9

$$\Rightarrow (5x + 3) : (4x + 3) = 11 : 9$$

$$\Rightarrow 9(5x + 3) = 11(4x + 3)$$

$$\Rightarrow 45x + 27 = 44x + 33$$

$$\Rightarrow x = 33 - 27 = 6$$

$$\text{Syam's present age} = 4x = 4 \times 6 = 24$$

Dr.R.Chinnaiyan Professor
MCA- NHCE

Cell Phone Usage Tips

The following tips may help mitigate potential harm from cell phone use:

1. Children and youth under 20 shouldn't use cell or wireless phones except in emergencies.
2. Keep cell phones turned off unless absolutely necessary. When they are on, don't carry them in your pocket or against your body. Keep the back of the phone, where the antenna is, facing away from your body.
3. Use a headset or wireless head-



- phone with low power. This removes the phone from right beside your brain.
4. Use your phone only when/where the signal is good. In marginal ar-

eas, it steps up its power output, so you are exposed to more radiation.

5. Text rather than talk. It uses less power and exposes you less. If you need to talk, use your phone on speaker, and keep it further from your head. If you place it on your lap, use a barrier (like a book) between your phone and your body.
6. Pregnant women should keep cell and wireless phones away from their abdomen, and everyone should keep cell and wireless phones away from babies, children and youth.

Marshmallow- Google's Next Version of Android

Google has given a name to its soon-to-be released operating system for its Android mobile devices: Marshmallow. The moniker for the 6.0 version of the dominant mobile computing system follows a tradition of using sugary treats for Android including Lollipop (5.0), KitKat (4.4), Jellybean (4.1) and Ice Cream Sandwich (4.0). "Whether you like them straight out of the bag, roasted to a golden brown exterior with a molten center, or in fluff form, who doesn't like marshmallows?" product manager Jamal Eason asked in a post on the Android developer blog. Eason said developers seeking to develop or update applications for Android can now download the software.



stall or upgrade, and the applications instead request permissions as it needs them, according to Google.

Android is used in nearly 80% of smart phones worldwide, although many devices use older versions for which upgrades are not available. Android is also the leading platform for tablets, according to market surveys. Marshmallow also streamlines the "permissions" model for users to install and upgrade apps. Users running certain apps will not need to grant any permissions when they install or upgrade, and the applications instead request permissions as it needs them, according to Google.

Android is used in nearly 80% of smart phones worldwide, although many devices use older versions for which upgrades are not available. Android is also the leading platform for tablets, according to market surveys.

Kavitha SN
Asst. Prof.
MCA

Important days / dates in January:

Important days / dates in January:
January 01 : Global family day.
January 09 : NRI Day.
January 10 : World laughter day.
January 12 : National Youth Day.
January 15 : Army Day.
January 23: Netaji Subhash Chandra Bose birthday
January 26 : India's Republic Day
January 26 : International Customs day.
January 28 : Lala Lajpat Rai birthday
January 28 : Data protection day
January 30 : Martyrs' Day
January 30 : World leprosy eradication day

Biography of Sri Mokshagundam Visvesvaraya

Date of Birth: 15 September 1860

Place of Birth: Muddenahalli village (Kolar District, Karnataka)

- 1881: Completed B.A. from Central College Bangalore.
- 1883: Completed Civil Engineering from Science College in Poona.
- Sir Mokshagundam Visvesvaraya was an eminent engineer and statesman and played a key role in building of modern India.
- When Sir M. Visvesvaraya cleared his engineering, Government of Bombay offered him a job and appointed him Assistant Engineer at Nasik. As an engineer, he achieved some marvelous feats.
- He planned a way of supplying water from the river Sindhu to a town called Sukkur. He devised a new irrigation system called the Block System. He devised steel doors to stop the wasteful flow of water in dams. He was the architect of the

Krishnaraja Sagara dam in Mysore.



- Sir M. Visvesvaraya led a very simple life. He was a strict vegetarian and a teetotaler. He was known for his honesty and integrity.
- In 1912, Maharaja of Mysore appointed Visvesvaraya as his Dewan. Before accepting the position of Dewan of Mysore, he invited all his relatives for dinner. He told them very clearly that he would accept the prestigious office on the condition that none of them would approach him for favours.
- As Dewan of Mysore, he worked tirelessly for educational and industrial development of the state. When he

was the Dewan many new industries came up. The Sandal Oil Factory, the Soap Factory, the Metals Factory, the Chrome Tanning Factory, was some of them. Of the many factories he started the most important is the Bhadravati Iron and Steel Works.

- In 1913 Bank of Mysore renamed as State Bank of Mysore.
- Sir M. Visvesvaraya voluntarily retired as Dewan of Mysore in 1918. He worked actively even after his retirement.
- In 1920 Bhadravati Iron and Steel Works – as its Chairman he rescued it from becoming extinct & Published a Book named Reconstructing India.
- 1934 – Planned Economy for India

Awards Received:

- 1906 – "Kaisar-i-Hind"

in recognition of his services

- 1911 – C.I.E. (Companion of the Indian Empire) at the Delhi Durbar
- 1915 – K.C.I.E (Knight Commander of the Order of the Indian Empire)
- 1921 – D.Sc. – Calcutta University
- 1943 – Elected as an Honorary Life Member of the Institution of Engineers (I)
- 1944 – D.Sc. – Allahabad
- 1948 – Doctorate – LLD. Mysore University.
- 1953 – D.Litt – Andhra University.
- 1953 – Awarded the Honorary Fellowship of the Institute of Town Planners, India.
- 1955 – Conferred BHARATHARATNA
- 1958 – 'Durga Prasad Khaitan Memorial Gold Medal' by the Royal Asiatic Society Council of Bengal

Abdul Afsar, I
MCA- NHCE

Swami Vivekananda Jayanti 2016



This can be done not just on his birthday but on all days of the year.

Swami Vivekananda Jayanti celebrates the birthday of Swami Vivekananda. Swami Vivekananda's birthday falls on the Paush Krishna Saptami, the 7th day after the full moon day in the Hindu month of Paush. According to the English calendar Swami Vivekananda was born on January 12, 1863. In 2016, the date of the birth anniversary is on January 31. In 2016, it is the 153rd birth anniversary. Swami Vivekananda was one such modern saint who kindled the passion of search for knowledge in the minds of people. In India, it is observed as the National Youth Day. They wanted each individual to realize his/her potential.. The ideal way to remember a saint is by understanding his teachings. Swami Vivekananda has given his valuable thoughts on several topics. It is for us to pick up these pearls of wisdom and contemplate and apply it in our daily life.

Behind the Scene	
Publisher :	Dr. Mohan Manghnani Chairman, New Horizon Educational Institution
Editorial Board:	Dr. Manjunatha, Principal, New Horizon College of Engineering Dr. Bodhi Satvan, Principal, New Horizon College, Marathalli Dr. S. Edwin Christopher, Principal, New Horizon PU & NHC, Kasturinagar Dr. Roopmala R Koneri, Principal, New Horizon College of Education Mr. H. N. Surya Prakash, Registrar Dr. G. Lakshminarayana, Director - Training & Placement Mr. R. Chakraborty, Director - Public Relations Ms. Manjula V, Head - HR Dr. R. Chinnaiyan, Professor - MCA Ms. Rasajna CV, Asst. Professor, BSH Ms. Kirthi M Mr. Vignesh G, V Sem, MCA Mr. Praveen NC Mr. Krishna S
Editor:	
Co-editor:	
Alumni Coordinator:	
Student Editor:	
Design:	
Photograph:	