

Editor's Point—Rate yourself rather than INSTITUTION!

Career 360 conducted an online survey, asking –“Is your Institution Worth your Money”; even if you say NO, does it make a difference? Once an Institution is selected, STUDENTS have the power to improve its worth, name and fame over the years with initiative, approach and actions. Irrespective of the Institution, the problem today is PLACEMENT, wherein LinkedIn is coming up as a new choice for the students to upload profile. Not bad, but let it not be a laughing stock.

The T&P departments have herculean task. But they can't assure a job to everyone. It matters how the students prepare because T&P is only a bureau to bring the TWO sides together. The success rate of effort can multiply manifold if FACULTY gets involved. And to be an ENGINEER first, the students must equip with the technology trends at companies like SIEMENS, GE, L&T, M&M and Bharat Forge etc.

This issue touches upon profile of SIEMENS and HACKING of the Operating System (OS) of Human Brain.

1. SIEMENS: The Technology Leader of 2050 !

Werner von Siemens – was born in 1816 in a village near Hanover in Germany. His family lacked resources to pay for university education that made him join the Prussian army in 1835, where he spent 3- years studying mathematics, physics, chemistry and ballistics at the Artillery and Engineering Academy in Berlin.



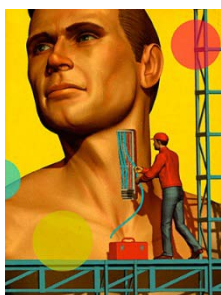
Beginning with a patent in 1842 for electrolytic method of gold and silver plating, the innovative brain of Siemens hit upon the idea to improve the **Wheatstone telegraph** in 1846. Making use of cigar boxes, tinfoil, pieces of iron, and some insulated copper wire – he designed his own pointer telegraph. The construction of apparatus was entrusted to a mechanical engineer, Johann Georg Halske. The two came together to form their company in October 1847 in Berlin.

The next development to the credit of Siemens was **gutta percha press** that made it possible to create seamless insulation for copper wire. These two developments proved corner stone on the road to modern telecommunication. Starting with contracts for laying and maintaining telegraph lines over long distances across Europe and Russia, the company entered production and laying of submarine cables and got itself renamed as **Siemens Brothers** in 1865.

A revolution came with the discovery of the dynamo-electric principle in 1866. With this, it became possible to generate and distribute electrical energy cost effectively and in large quantities. *Hereafter, the power engineering began to develop at a breathtaking pace. In 1879, the first electric railway was presented at the Berlin Trade Fair and the first electric street lighting was installed in Berlin; in 1880 the first electric elevator was built in Mannheim; and in 1881 the world's first electric tramway went into service in Berlin Lichterfelde.*

The activity in telegraphy entered a new phase when Siemens had a revolutionary idea to construct telegraph line from London to Calcutta. On April 12, 1870, the sensation was complete: In London, William Siemens demonstrated that it was possible to exchange telegrams with Calcutta within the space of an hour. With employee strength of over 340,000 the company is in its 168th year flying fast to leave its competitors behind in areas of [Information & Communications](#) [Power](#) [Transportation](#) [Healthcare](#) [Industry & Automation](#) [Lighting](#) [Household Appliances](#)

(For detailed PROFILE visit IBF site or the SIEMENS site at <http://www.siemens.com/history/en/innovations/>)



2. The Vagus Nerve: A Back Door for Brain Hacking –

Doctors stimulate a nerve in the neck to treat epilepsy, heart failure, stroke, arthritis, and a half dozen other ailments. *Vagus* means “wandering” in Latin, and true to its name, the nerve meanders around the chest and abdomen, connecting most of the key organs—heart and lungs included—to the brain stem. It's like a back door built into the human physiology, allowing you to hack the body's Operating System.<http://spectrum.ieee.org/biomedical/devices/the-vagus-nerve-a-back-door-for-brain-hacking/>

Engineering NEWS that Matters:

- **Tata Power** commissioned India's first Natural Ester filled Distribution Power Transformer in Mumbai. Tata Power has developed the first *Green and Fire Safe* TRANSFORMER with active participation from various OEM's like ABB, Scheinder, Raychem RPG and Cargill. Henceforth, Tata Power would use the technology at all Package Substations up to a capacity of 33 /11 kV, 20 MVA
- **DANFOSS Industries**, a pioneer in Climate and Energy Solutions segment for over 90 years has offered to establish specialized Refrigeration and Cooling (RAC) Lab at **ITI Guindy** that has set up in Chennai and Kanchipuram. It will help students and faculty gain knowledge and experience on new innovations being introduced in the market. The agreement will also provide for industrial visits to Danfoss facilities, technical sessions and special training programs, frequent visits of Danfoss experts to ITI, Internships, Scholarships and other reward programs.
- **Texas Instruments India** employees are now cycling to work to reduce carbon footprint
- **Foxconn Technology**, a **TAIWAN** based company is expected to manufacture Apple's iPhone in India,
- **Toshiba JSW Power Systems Private Limited (TJPS)** has established Welding Training School factory in Chennai that will impart gratis (free of charge) training to 30 students recommended from neighboring Industrial Training Institute (ITI) during May - June 2015 in 3 batches of 12 days. The program will include fundamentals of welding and cover high-level welding skills, followed by Skill Evaluation test. The program of TJPS also aims to foster importance of safety, time management, compliance of manuals, and environmental awareness in manufacturing processes.

Courtesy: <http://www.energetica-india.net/news/training-and-education>

THE FUTURE IS DIGITAL

How can you achieve a shorter time to market without sacrificing quality?

To meet these market demands, sports car manufacturer Maserati went digital and worked with holistic manufacturing solutions, choosing a partner who covers the entire industrial value chain: **Siemens**. Watch the steps in Design, Production Planning and the Manufacturing Process at the Link below:

<http://www.siemens.com/stories/cc/en/driven-by-data/>

Making of an ENGINEER !

1. Do not get carried away by what others say. Every college is good and every branch has tremendous potential for ENGINEERING career. What it all needs is to get exposed to the happenings around and the vast literature available on internet. If **Werner von Siemens** could make so many inventions, everyone has some hidden genius. THINK ! you too can make an improvement that we may call INNOVATION.
2. Some people may get starting annual salary package in Crore of Rupees, but others could overtake them in the long run. There is plenty of scope in manufacturing operations, design, and maintenance. It needs patience to rise the staircase to success. Do not let the virus affect you or your , parents. If you can read HINDI, visit Introductory Chapter and INDEX at the link <http://ibf.org.in/...HINDI write up>
3. We shall provide links to more Chapters of the book एक नया वायरस –करोड़पति इंजिनियर in due course as part of our **eMitra** project to only those who will enroll for the membership. For details write to vngrover@gmail.com
4. Try to be master of common engineering tools and accessories that are common to every industry, like – drives, motors and pumps, circuit breakers and switches, transformers, compressors, hydraulic cylinders and pneumatic devices, bearings, fasteners, lubricants, boilers, heating – ventilation – air conditioning (HVAC) set up etc.
5. Refer to these beyond Text Books; get a feel during plant visits and summer training; develop hobby groups on plant, machinery and maintenance practices. Start with your old cycle, moped and scooter.
6. Be on the lookout for FREE technical newsletters of technical societies like – IEEE, ASM International; company newsletters and business papers to keep abreast of latest developments.
7. Listen to Veerendra Jaitly: a visionary IIT Kharagpur Alumni and follow his BLOGS at <http://excellenceguru.blogspot.in/>
8. Read an interesting article on “**Managing the CAREER Fire**” at https://www.linkedin.com/pulse/managing-career-fire-virendra-grover?trk=pulse_spock-articles