





# FACULTY OF ENGINEERING AND TECHNOLOGY

**GURUKULA KANGRI VISHWAVIDYALAYA, HARIDWAR** 

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Vice Chancellor

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# Intra Faculty Sports Championships Prize Distribution Ceremony









Invited Lecture from IBM on Cloud Computing





Beginning of New Session (2014-15) with Yajna

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# Editorial

## Dear Readers

It gives us immense pleasure that last semester curriculum was finished in time and examination was also conducted as per schedule. A little deviation and delay happened due to lok sabha election. Result has been declared and i congratulate all the students who have scored well in semester examination.

Coming semester is having new challenges and much more responsibility as new students will join our institute and most of them will stay in hostel. So our prime responsibility is to ensure comfortable stay and ragging free stay in hostel as well as in FET. I feel proud to announce that we have not received any complaint regarding ragging in the past and i ensure that same culture will be followed by our students in future. In FET, students are taking admission from different parts of country and are from different culture, So we must handle their grievances in proper way for which we are following "Garbhasth Chattra" tradition and having discipline committee so that our students will not face any problem.

I wish all the best for new comers who are associating with FET and i hope our faculty will perform beyond their Prof. R. D. Kaushik expectations. **Chief Editor** 

# From Vedas

प्रो॰सत्यदेव निगमालंकार,

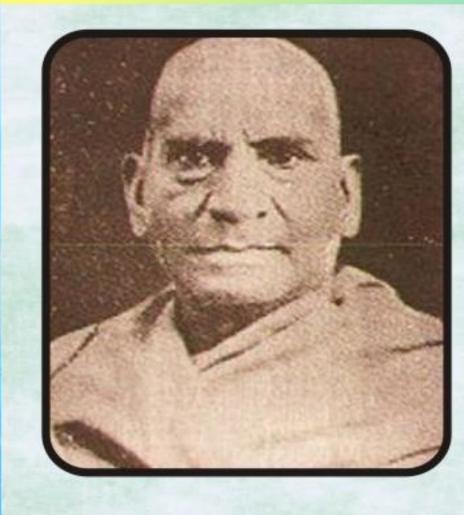
# विज्ञान की प्राप्ति से सुख मिलता है

रेवती रमध्वं बृहस्पते धारया वसूनि। ऋतस्य त्वा देवहविः पाशेन प्रतिमुञ्चामि धर्षां मानुषः॥ यजु०६.८

वैज्ञानिकों को विज्ञान की शिक्षा से जिज्ञासुओं को परमेश्वर से लेकर पृथिवी तक के पदार्थों का ज्ञान कराना

श्रद्धानन्द वैदिक शोध संस्थान, चाहिये। क्योंकि विज्ञान से समाज मूर्खता के बन्धन से छूटता है और सुख प्राप्त करता है। गु०कां०वि०वि०,हरिद्वार

# From Archives



स्वामी जी का दूसरे सम्प्रदायों के प्रति सम्मान उनके इस कथन से झलकता है— ''पुरानी मजारों पर जहां मुसलमान जूते पहन कर चले जाते थे वहां मै जूते उतार कर जाता हूँ"। किसी भी सम्प्रदाय के लोग जब शव यात्रा में जा रहे होते थे तो स्वामी जी अपनी सवारी से उतर कर मृतआत्मा के सम्मान हेतु कुछ क्षण के लिए खड़े हो जाते थे।

सौजन्य से हेमन्त आत्रेय

# Semester Examination





# HACCULLY NEWS

- 1. Mr. Sanjeev Kumar Lambha, Asst. Professor, Department of Mechanical Engineering & Mr. Namit Khanduja, Asst. Professor, Department of Computer Science & Engineering attended an Orientation Programme (OP-26) at UGC-Academic Staff College, Kumaon University, Nainital from April 01, 2014 to April 28, 2014.
- 2. Prof. R. D. Kaushik and Dr. M. M. Tiwari published a research paper entitled "Kinetic- Spectrophotometric Determination of Mn<sup>II</sup> in Nanograms Based on its catalytic effect on periodate Oxidations of 2-amino-m-xylene" in Research Journal of Pharmaceutical, Biological and Chemical Sciences (RJPBCS) pp 1963-1971, ISSN 0975-8585, May-June 2014.
- 3. An invited lecture on "Cloud Computing" was organized on April 14, 2014 in collaboration with IBM.
- 4. Mr. Yogesh Kumar attended a short term course on Innovations and Creativity Developement in Teachers and students during April 21-25, 2014 at NITTTR Chandigarh.
- 5. Various intra faculty sports championships of Cricket, Basketball and Football were organized in FET in coordination of Dr. Dharmendra Baliyan. Hon'ble Vice Chancellor Prof. Surendra Kumar & Dean FET, Prof. R. D. Kaushik felicitated the winning teams on May 16, 2014.
- 6. Dr. M.M. Tiwari and Dr. Vivek Goel attended CSAB meeting in Delhi organized by MHRD.
- 7. Dr. Vivek Goel Published a Research paper entitled "Coinage" in International Journal of Engineering & Management research, Vol. IV, Issue II, April 2014, PP 62-69.
- 8. Dr. M. M. Tiwari was appointed as president of "Seva Prakalp" of Uttarakhand west, Bharat Vikas Parishad in May 2014.
- 9. Mr. Suyash Bhardwaj published a research paper on "A New Design for Providing Security in Adhoc Network" in International Journal of Computer Applications (IJCA) 2014 pp 354-359, ISSN (0975-8887)
- 10. Faculty of Engineering and Technology, Gurukul Kangari Vishwavidyalaya, Haridwar becomes reporting centre of CSAB 2014.
- 11. Mr. Praveen Kumar Pandey, Asst. Professor, Department of Mechanical Engineering has attended Two week (May 20, 2014 to May 30, 2014) ISTE Workshop at Motilal Nehru National Institute of Technology Allahabad (RC ID: 1330) on Fluid Mechanics Conducted by IIT Kharagpur under the National Mission on Education through ICT (MHRD).
- 12. Dr. Vipul Sharma participated in IEEE India Antenna Week (IAW) from May 26-30, 2014.
- 13. Ripudaman Singh of VIII semester ECE presented paper in IEEE India Antenna Week on "A Low Cost Meta Material Structure" on May 26-30, 2014.
- 14. Syntel took an online test on May 31, 2014 of the final year students.
- 15. Students of III year registered for TCS on June 02, 2014.
- 16. Mr. Brijesh Kumar attended a QIP short term course on "Solar Power and Space Conditioning" during June 02-08, 2014 at IIT, Delhi
- 17. Mr. Sunil Kumar, attended on week Short term course on 'Advanced Machining and Micro manufacturing 'under Faculty Development Programme of TEQIP-II (MHRD) from June 02, 2014 to June 06, 2014, Organised by the Department of Mechanical Engineering, PEC, University of Technology Chandigarh.
- 18. Mr. Amrish Jangra Attended Faculty Development Program on "Advanced Embedded System and VLSI Design and its Applications" at BRCM college of Engineering and Tehnology, Bhiwani June 16-20, 2014.
- 19. Mr. Amrish Jangra attended short term course on Hands on Experience in Signal Processing using MATLAB/Simulink and their Implementation at BPS, Mahila Vishwavidyalaya, Sonipat June 23-29, 2014.
- 20. Mr. Prateek Agarwal attended a one week faculty development program on MCC 2014 at NIT, Delhi from June 30, 2014 to July 04, 2014.





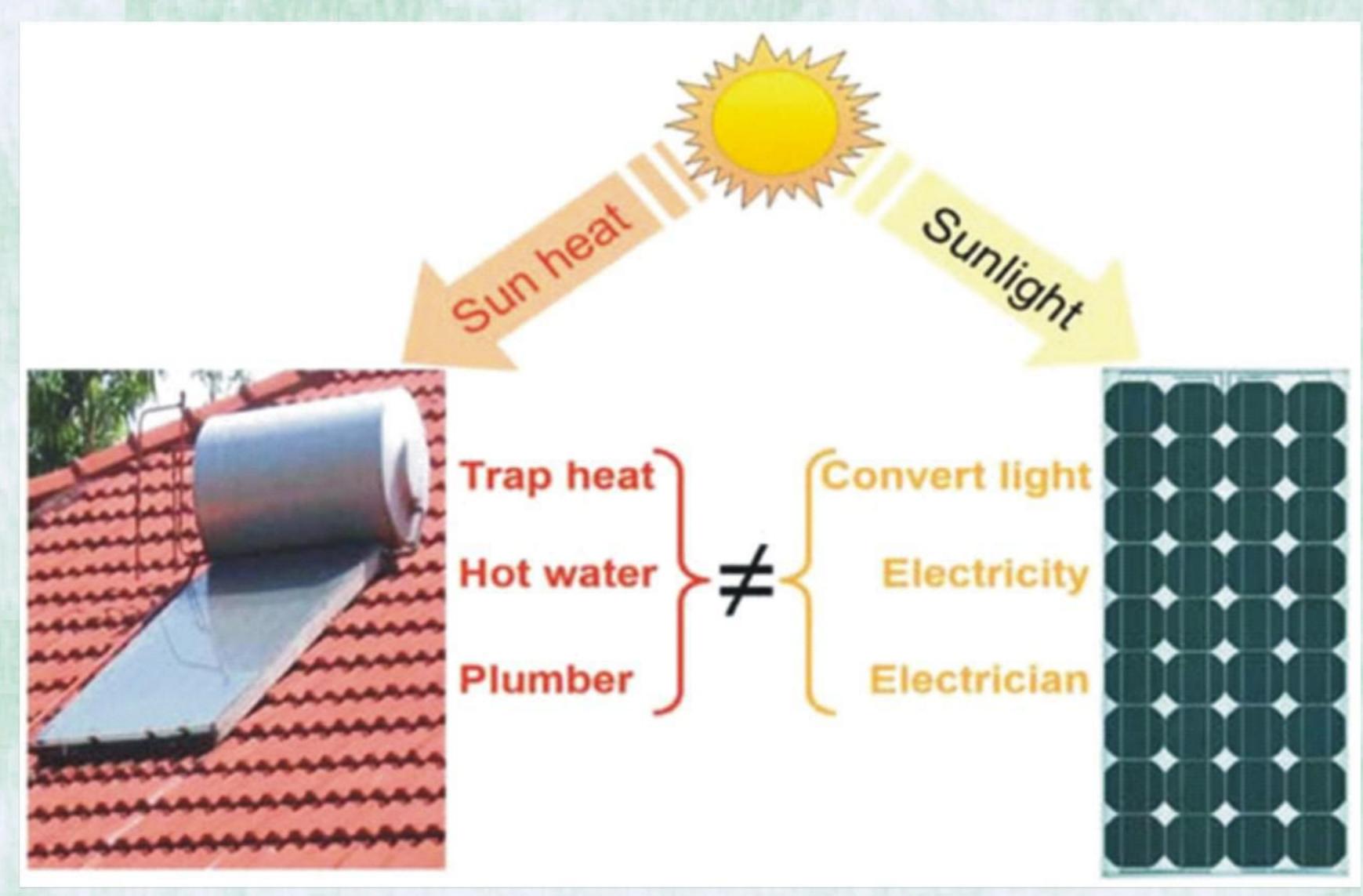
# Solar Photovoltaic System

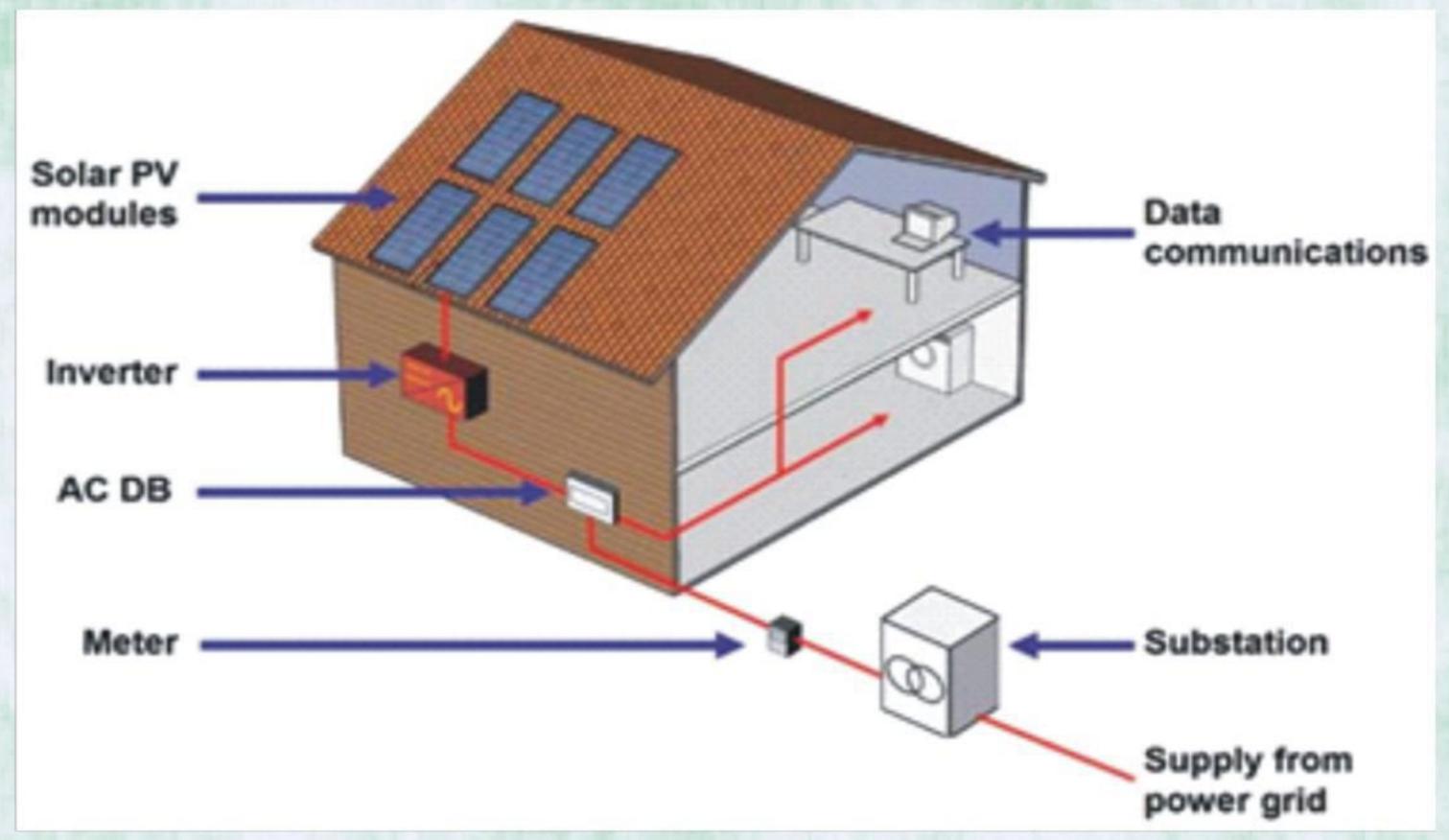
The Sun delivers its energy to us in two main forms: heat and light. There are two main types of solar power systems, namely, solar thermal systems that trap heat to warm up water, and solar PV systems that convert sunlight directly

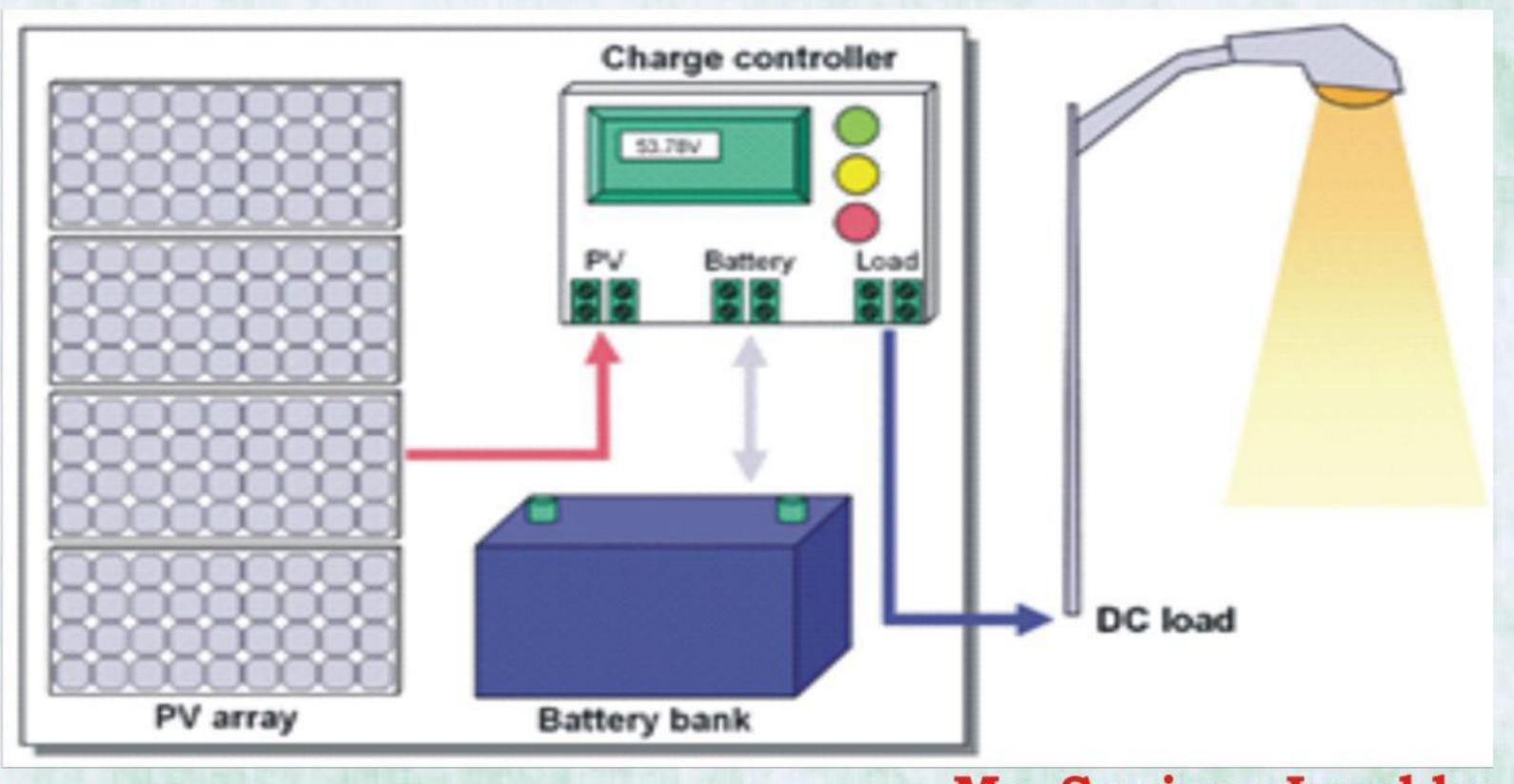
into electricity. When the PV modules are exposed to sunlight, they generate direct current ("DC") electricity. An inverter then converts the DC into alternating current ("AC") electricity, so that it can feed into one of the building's AC distribution boards ("ACDB") without affecting the quality of power supply.

# Types of Solar PV System

Classified based on the end-use application of the technology in two main types: Grid-connected (or grid-tied) and off-Grid (or stand alone) solar PV systems.







Mr. Sanjeev Lambha Incharge, Dept. of Mechanical Engineering

# Cloud Computing

Cloud computing is the technology evolving at a great pace. It has very soon become the need of today business organizations irrespective of their business. In this article we will see what is Cloud Computing? To understand it let us say that you have to start a business for eg. say Cyber Café so the first thing required to start cyber café is that you shall have a space(shop), now lets assume that you don't have so much of money that you buy a shop so what is the Alternative. We can have the shop on rent. Now when we take a shop on rent we have to pay for the whole month irrespective of for how much time we open the shop, rent is fixed on monthly basis, think of a scenario where we have to pay only for the time we open the shop, how beautiful and cost effective it would be. Now Cloud Computing is such a technology, which offers you each and every thing related to computers, be it hardware or software on rent basis and charge you for as much as you need. Going ahead think of electricity in your house, do you ever wonder how it is generated and then distributed to reach to your house finally, you simply use it and pay for the usage. Similarly Cloud computing provides such a platform where you just use the IT services and pay for your usage.

In Technical Terms cloud computing is an enormous collection of resources of computers (storage/computation/network/testing etc.) which can be increased or decreased as per the demand of user and provided to him on payment basis irrespective of the location and device of the user.

NIST defines cloud as "Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released with minimal management effort or service provider interaction".

In cloud computing all the facilities provided are referred as services. To access any service user needs only a browser and internet connection, it is irrespective of the device and hardware / Operating System of the device. Gmail is an example of cloud services.

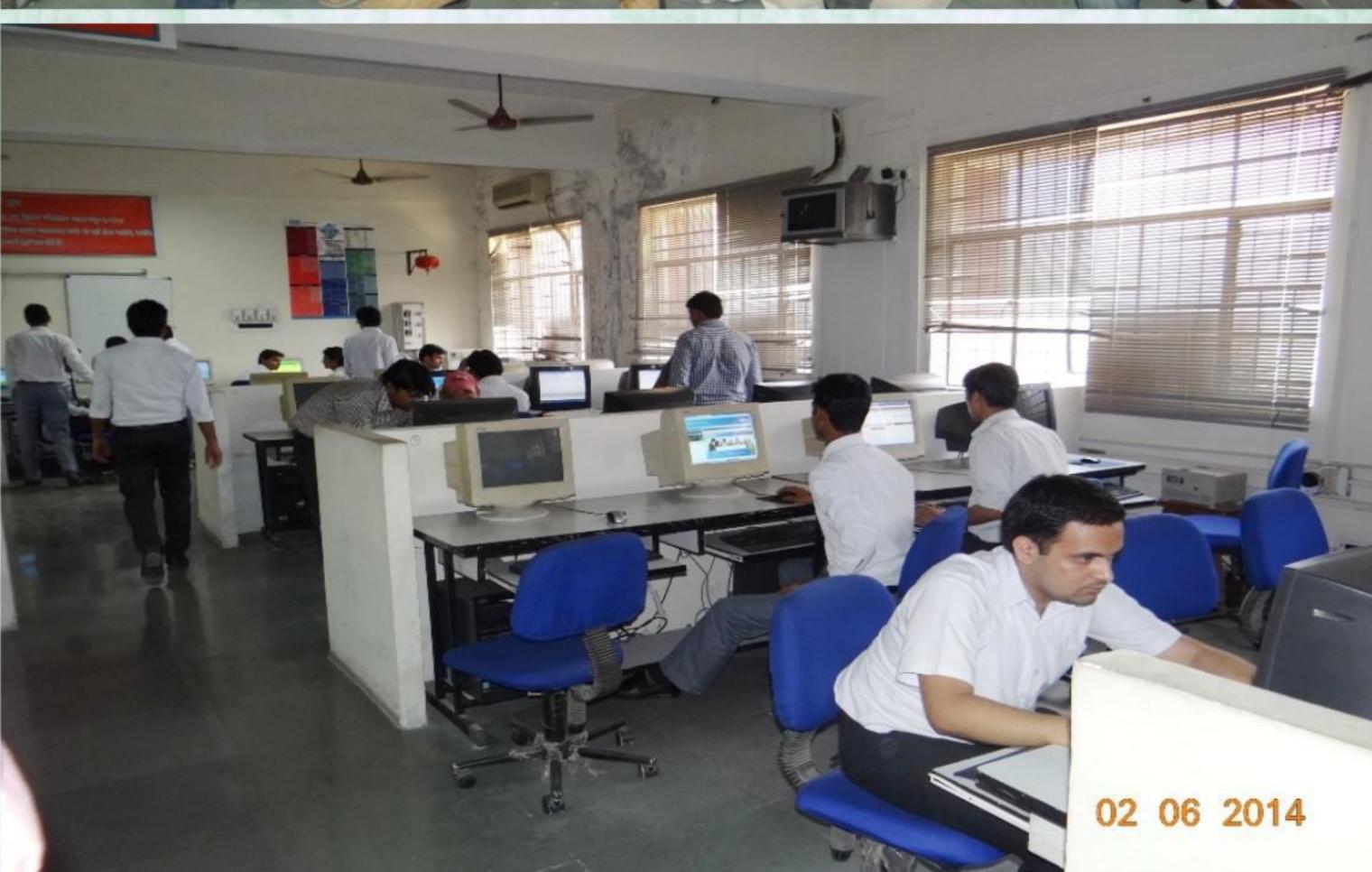
Dr. Mayank Aggarwal

# TCS Online Registration









# Syntel Online Test





Invited lecture on Interview Skills





# Business Process Reengineering

"Reengineering is the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance such as cost, quality, service and speed." BPR advocates that enterprises go back to the basics and re-examine their very roots. It doesn't believe in small improvements. Rather it aims at total reinvention. As for results: BPR is clearly not for companies who want a 10% improvement. It is for the ones that need a ten-fold increase. BPR focuses on processes and not on tasks, jobs or people. It endeavours to redesign the strategic and value added processes that transcend organizational boundaries.



## WHAT TO REENGINEER?

Generally they make their choices based on three criteria:-

Dysfunction: which processes are functioning the worst?

Importance: which are the most critical and influential in terms of customer satisfaction?

Feasibility: which are the processes that are most likely to be successfully reengineered?

Business Process Reengineering is a discipline in which extensive research has been carried out and numerous methodologies churned out. But what seems to be lacking is a structured approach. The methodology includes the five activities: Prepare for reengineering, Map and Analyse, Design To-be process, implement reengineered process and Improve continuously.

## SEVENR'S OF REENGINEERING

## REORCHESTRATE

It works as central theme for all the activity of reengineering. Its purpose is to bring about necessary change for reengineering. It includes transferring organization from traditional hierarchical organization to network base organization and reengineering of few or more cross functional organizational process.

### REALIZATION

It involves 'why' in the problem. 'Why do we do this the way we are doing it now?' 'What can be done which change the situation'? These questions probably results in the conclusion that radical improvement is needed. It starts with the careful SWOT analysis (strength, weakness, opportunity, threat).

## REQUIREMENT

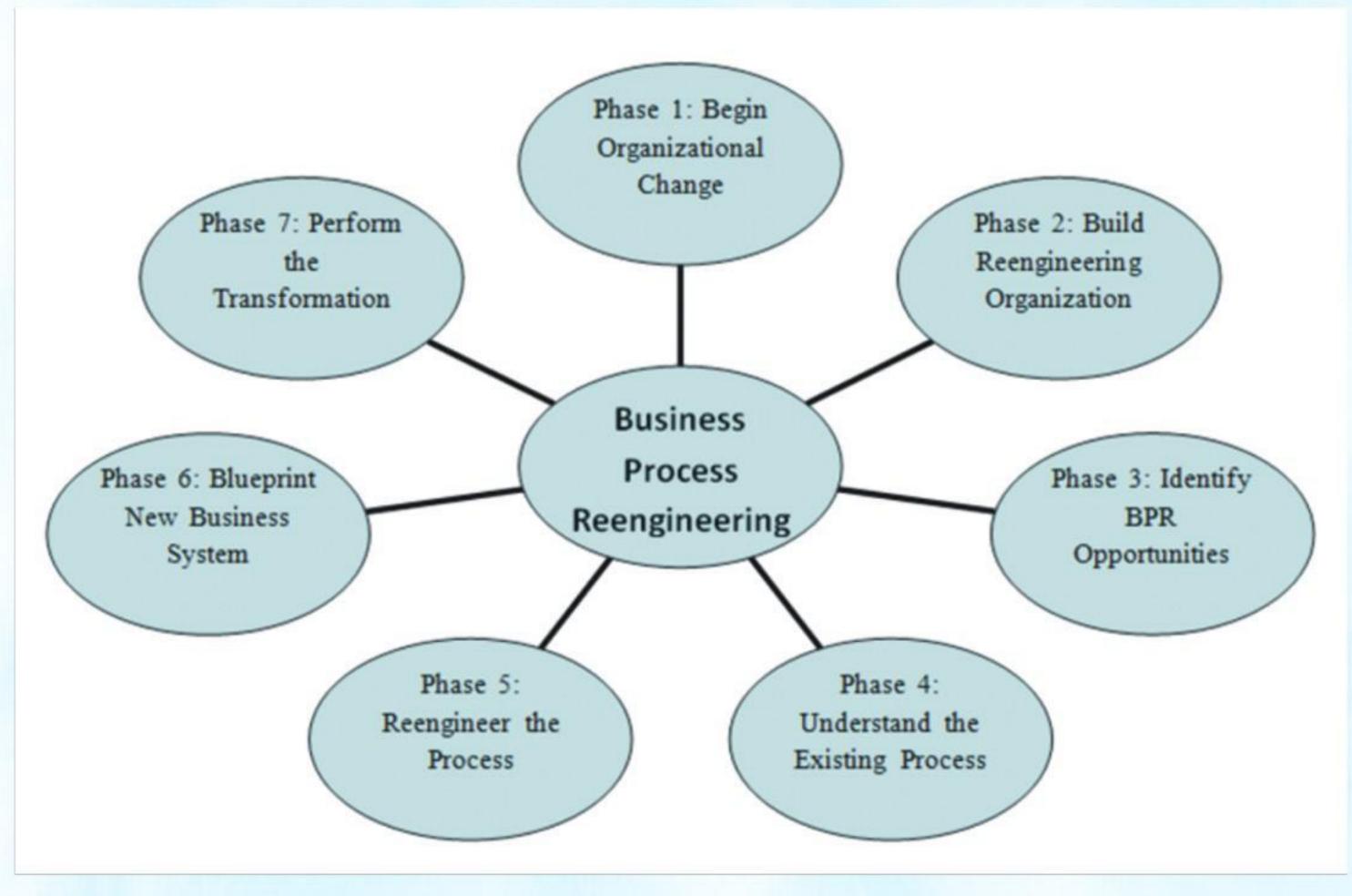
It is second phase of reengineering process. It involves realigning vision and few requirements to satisfy and access to customer satisfaction. Reengineering effort must not start without requirement analysis for customer, product, service etc.

# RETHINK

It involves critical examination of all current and existing condition of an enterprise. It has special focus on process weakness and variation. Critical analysis of an outdated process, procedure, technology and method has to be determined in this step.

## REDESIGN

For any reengineering effort redesign of an enterprise has to be well planned. The redesign should involve breaking conventional rules through rethinking. It should be set around visionary goals for enterprise. Redesign effectiveness can be enhanced through IT and ERP facilities in deciding the framework for redesign (Martin, 1995) & (Petrozzo, Daniel, Stepper & John, 1994).



## RETOOLING

Purpose of retooling is to ensure that the involving enterprise would become more responsive to the reengineering effort necessary to minimize the inflexibility after BPR project (Andrews & Susan, 1994). It involves the evolution and adaptation of more comparative system such as technology require to improve production for service work procession, order for retooling effort to be adequate. It is not casual and quick fit process. It involves care full monitoring and documenting the characteristics of process for new tool such as ERP technology, production and service.

## REEVALUATE

It is final phase of reengineering. It involves the reevaluation of enterprises process to ensure that once the redesign and retooling efforts are over the evolved process has attain the requisite objective.

Mr. Kapil Mittal

# The Best Computer Tips and Tricks: Data Security

# Disable Remote Registry Editing

Only you should edit your Windows registry, so make sure this service is disabled by clicking Start, Run, and then typing "services.msc." Scroll down to Remote Registry and then set it to either manual or disable.

### Lock It Down

Lock your PC if strangers are nearby. Just press Windows key+L to lock your PC. Alternatively, you can set your screensaver to require a password if it's deactivated by checking the box in "Settings" that says "On resume, password protect."



# **Prevent Phishing Attacks**

Protect yourself from identity theft and phishing attacks by using the latest versions of Firefox, Internet Explorer, and Opera. These browsers include protection that double-checks URLs against a blacklist, and will notify you if you're about to visit a known phishing site.

# **Keep Your Software Up to Date**

Hackers and crackers love to take advantage of exploits found in software, which causes the developers to release a patch. Therefore, enable Windows Update and also download the latest version of software, specially your Web browser and antivirus program.

# Be Wary of P2P Files

Virus makers love peer-to-peer file-sharing services. They name their virus "Angelina Jolie Wallpapers" or something similar and upload it. Then millions of people download it, launch it, and wonder why their computers are infested with viruses. Download with caution, and always use antivirus software.

# Wipe the Drive Before Donating Your Old Computer

If you are getting rid of a hard drive and want to render all or some of its data unrecoverable, you have two options. You can download Eraser to securely wipe any file or folder, and you can use Darik's Boot and Nuke SE (DBAN) to write over the entire drive.

# **Encrypt Sensitive Files**

If you want to encrypt sensitive data, you can buy a portable USB drive with built-in encryption like the CMS ABS-Secure Encrypted Backup System, but if you just want to protect a specific folder or group of files, we recommend Truecrypt. It encrypts a custom-sized volume with 256-bit AES encryption, so it's extremely secure.

# **Verify Your Backups**

Even after you establish a regimen, however, it's critical that you check the target folders periodically to ensure the proper files are being backed up. If not, re-configure your backup routine to make sure it's working properly.

## Back Up Your Data

You must back up your data. If you have the means, we highly recommend an external USB drive like the Maxtor OneTouch 4 Plus. If you need some good backup software—try the free version of 2BrightSpark's Syncback, which is sublimely easy to configure.

## Turn Off Your PC During Lightning Storms

Even surge protectors can be overwhelmed during electrical storms, and it can be seen the result like - fried motherboards, processors, hard drives and power supplies. If you're experiencing a heavy-duty electrical storm, unplug your computer from the wall socket.

## Enable S.M.A.R.T for Your Hard Drives

S.M.A.R.T (self-monitoring analysis and reporting technology) allows your drive to report whether it's about to fail, which can give you a heads-up to replace it. All the modern hard drives have it—go into your PC's BIOS (press Del or F2/F10 during bootup) and enable it.

## **Enable Extension Viewing**

By default, Windows hides file extensions, and virus-makers exploit this feature by giving their executable program names like Popularsong.exe, which appears as a harmless audio file. To enable extension viewing, open any folder and click Tools, Folder Options, and uncheck "Hide extensions for known file types."

# Farewell to Final Year Students













