Speech on Inaugural Function of "Use of ICT for Teaching Learning" in Ahmednagar College on 23-02-2015.

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and my dear fellow participants good morning.

I am really very much thankful to organizer for giving me this opportunity to share my views on this important event "One Day Workshop on Use of ICT in Teaching and Learning".

Let me congratulate to all faculty members, non-teaching staff and student volunteers for great arrangement of this beautiful and important event. I also take this opportunity to congrats them for selecting such nice theme. Because today without ICT nothing can possible. It is used in all most all areas of life. It is like air, without which we can't survived today. It is actually a tool which directly suit to all domains. Best example is Mobile phone. Without which we can't able to do anything. Because we got all facilities on tip of finger including education also. Various mobile apps are available though we can learn so many new thing. Ibooks type of apps help to brows the digital contents of our curriculum. **About ICT for Teaching and Learning**

I am sure this event will be fruitful and u all get good innovative ideas about how to use ICT for Teaching and Learning.

Clean environment

Dear friends, you would like to review the process of photo-synthesis in the plant and tree family. "When the sun shines, the green plants breakdown water to get electrons and protons, use these particles to turn carbon-di-oxide into glucose and vent out oxygen as a waste product." Each mature tree in a year absorbs 20 Kgs of carbon-di-oxide and transforms into wood and reinforces the branches of the tree, and releases 14 kg of Oxygen. To facilitate this, I would suggest all the students present here to plant at-least 5 trees and nurture them.

About On Line Examination:

Now let me present some statics of expenditure and environment loss due to current paper based examination:

Total pages cost per exam event @ ` 50 per Kg	**48,30,000**	Rs
Total Trees cut for one exam event	**21,349**	nos.
Total Post-Examination Expenses per event	**99,60,000**	Rs
Total Cost of paper based examination per event	**1,47,90,000**	Rs

This expenses is only for one University, Such 13 University we have in Maharashtra.

We can reduce manual efforts, transport, time and give accuracy. Ultimately it help to reduce the examination fees. This is directly beneficial for Students as well as organization. Hence we intellectual must demand to have online examination of MCQ type.

"If u r ready to do hard work you can make wonders in any area".

 "The ups and down in life are also very important to keep us going…. because a straight line even in an ECG means we are not alive….!"

About Hard Work

We don't have any alternative for hard work.

"Path of success is not easy, nor swift".

Everybody has to go through scratch. There is no magic which can make wonders in one night. We have to take efforts, planning, regress follow-up, then only good things can come up.

"If u have miss anything in life, don't fill your eyes with tears! It may hide yet another beautiful thing standing in front of u!!"

"When I wish upon a star, makes no difference who I am. Anything my heart desires will come to me"

Research should be your passion.

Make research as your passion. Do it to make your carrier. Select only one topic go on doing it with new technologies for ever. As Technology changes don't change your topic, just modify your way of doing experiments as per new technologies.

About self-Carving of our future.

We are our own creator, we our self-have to do the thinks, Nobody will come and give us the readymade thinks and say ok pls enjoy. We have to do carving our self of our life.

Great motivational words written on the entrance of an American University.......!!

– "I know I am something, because God doesn't create garbage.....!!"

About Interdisciplinary work: Today novelty can come up only if u have knowledge of all fields. For ex. MEMS area, we should know Chemistry, Mechanical Engineering, Architecture, Physics, Computer and even Biology. One person can't handle all these areas, hence do work in collaboration and in group.

Dear Friends Few important things I would like share with u which u must remember in life:

1. I realize "imagination leads to creativity, creativity leads to thinking, thinking provides knowledge and knowledge makes you great".

2. I will have a goal and work hard to achieve that goal. I realize that small aim is a crime.

3. I will work with integrity and succeed with integrity.

4. I will be a good member of my family, a good member of the society, a good member of the nation and a good member of the world.

5. I will always try to save or better someone's life, without any discrimination of caste, creed, language religion or state. Wherever I am, a thought will always come to my mind. That is "What can I give?"

6. I will make my home clean, my surrounding clean, my school clean and my village or town clean.

7. I will always remember the importance of time. My motto will be "Let not my winged days, be spent in vain".

8. As a youth of my nation, I will work and work with courage to achieve success in all my tasks and enjoy the success of others.

9. I am as young as my faith and as old as my doubt. Hence, I will light up then, the lamp of faith in my heart.

10. My National Flag flies in my heart and I will bring glory to my nation.

Biomedical image processing is similar in concept to biomedical signal processing in multiple dimensions. It includes the analysis, enhancement and display of images captured via x-ray, ultrasound, MRI, nuclear medicine and optical imaging technologies.

Image reconstruction and modeling techniques allow instant processing of 2D signals to create 3D images. When the original CT scanner was invented in 1972, it literally took hours to acquire one slice of image data and more than 24 hours to reconstruct that data into a single image. Today, this acquisition and reconstruction occurs in less than a second.

Rather than simply eyeball an x-ray on a lightbox, image processing software helps to automatically identify and analyze what might not be apparent to the human eye. Computerized algorithms can provide temporal and spatial analysis to detect patterns and characteristics indicative of tumors and other ailments.

Depending on the imaging technique and what diagnosis is being considered, image processing and analysis can be used to determine the diameter, volume and vasculature of a tumor or organ; flow parameters of blood or other fluids and microscopic changes that have yet to raise any otherwise discernible flags.

Automotive driver assistance and traffic management

Eye and Head Tracking

Film and Video: Sports analysis

Film and Video

Gesture Recognition

General purpose vision systems

Industrial automation and inspection: Electronics industry

Industrial automation and inspection: Food and agriculture

Industrial automation and inspection: Printing and textiles

Industrial automation and inspection: Other

Medical and biomedical

Object Recognition and AR for Mobile Devices

People tracking

Photography

Safety monitoring

Security and Biometrics

Three-dimensional modeling

Web and Cloud Applications

Free and Open Source Software (FOSS)
FOSS Initiative Cell, Department of Electronics and Information Technology, welcomes you to the world of Free and Open Source Software (FOSS). FOSS is stipulated by a liberal licensing policy that makes it possible to be obtained free of charge along with the source code, which can be modified by the user as per requirements. Advantages like increasing interoperability, developing local capacity/ industry, reducing costs, achieving vendor independence, enabling localization, reducing piracy/copyright infringements and increasing growth of knowledge-based society are among the compelling reasons for adopting FOSS. India's strength in Information Technology can be utilized to develop products using FOSS which will help in bridging the digital divide with significant cost savings and facilitate the creation of a knowledge society. Indian industry/SMEs can benefit from the liberal licensing norms of FOSS which enables software to be freely modified and distributed.

DST has identified specific thrust areas in Cognitive Science which include Foundations of Cognition; Language and Cognition; Computational Intelligence; Cognitive Psychology and Cognitive Neuroscience etc.

Activities Supported under CSRI:

1. Individual R&D Projects: Grant is available for R&D projects in any thrust areas identified. Support will be provided for Equipments, Manpower and other research grant.

2. Multi-centric Mega Projects: Multi-centric projects are encouraged to provide better solution of issues related with social relevance, better understanding of neurodegenerative diseases and their therapeutics.

3. Post Doctoral Fellowship: Two years 'Post Doctoral Fellowship' Programme is aimed to develop human resource in Cognitive Sciences. The Scheme provides Opportunities to Young Scientists (below 40 years) for pursuing innovative research in frontier areas of Cognitive Science.

4. Support for Schools, Training, Workshops, Conferences etc: The CSRI programme extends partial support for organizing conference/ seminar/ symposia/ training programmes/ workshops/ schools on a selective basis.

 The support is provided to Academic or Research Institutions, Universities and other Professional bodies to encourage young researchers and keep scientific community abreast of the latest developments in various areas of Cognitive Science.

Programme Schedule: Department invites Individual Project Proposals and application for Post Doctoral Fellowship once in a year through advertisement in all leading Newspapers and DST website.

Mega projects for intensified research in particular area are supported under top-down approach in discussion with DST and stakeholders. Proposals for conducting Schools /Conferences are open throughout the year and considered on request

Big Data Initiative

BDI: An R&D Perspective

By definition, Big Data, is data whose scale, diversity, and complexity require new architecture, techniques, algorithms, and analytics to manage it and extract value and hidden knowledge from it.

 In other words, big data is characterised by volume, variety (structured and unstructured data) velocity (high rate of changing) and veracity (uncertainty and incompleteness).

In the Big Data research context, so called analytics over Big Data is playing a leading role. Analytics cover a wide family of problems mainly arising in the context of Database, Data Warehousing and Data Mining research. Analytics research is intended to develop complex

procedures running over large-scale, enormous in-size data repositories with the objective of extracting useful knowledge hidden in such repositories. One of the most significant application scenarios where Big Data arise is, without doubt, scientific computing.

Here, scientists and researchers produce huge amounts of data per-day via experiments (e.g., disciplines like high-energy physics, astronomy, biology, bio-medicine, and so forth).

But extracting useful knowledge for decision making purposes from these massive, large-scale data repositories is almost impossible for actual DBMS-inspired analysis tools.

From a methodological point of view, there are also research challenges. A new methodology is required for transforming Big Data stored in heterogeneous and different-in-nature data sources (e.g., legacy systems, Web, scientific data repositories, sensor and stream databases, social networks) into a structured, hence well-interpretable format for target data analytics.

As a consequence, data-driven approaches, in biology, medicine, public policy, social sciences, and humanities, can replace the traditional hypothesis-driven research in science.

Big Data: Science & Technology - Challenges

Some of the S&T challenges that researchers across the globe and as well as in India facing are related to data deluge pertaining to Astrophysics, Materials Science, Earth & atmospheric observations, Energy, Fundamental Science, Computational Biology, Bioinformatics & Medicine, Engineering & Technology, GIS and Remote Sensing, Cognitive science and Statistical data. These challenges requires development of advanced algorithms, visualization techniques, data streaming methodologies and analytics.

The overall constraints that community facing are

The IT Challenge: Storage and computational power

The computer science: Algorithm design, visualization, scalability (Machine Learning, network & Graph analysis, streaming of data and text mining), distributed data, architectures, data dimension reduction and implementation

The mathematical science: Statistics, Optimisation, uncertainty quantification, model development (statistical, Ab Initio, simulation) analysis and systems theory

The multi-disciplinary approach: Contextual problem solving

BIG DATA ANALYTICS AND THE INDIA EQUATION

To tap the analytics momentum, India now needs to build a sustainable analytics eco-system that brings in a strong partnership across the industry players, government, and academia. Some of the key actions for analytics eco-system in India would be around.

Talent Pool - Create industry academia partnership to groom the talent pool in universities as well as develop strong internal training curriculum to advance analytical depth.

Collaborate - Form analytics forum across organization boundaries to discuss the pain-points of the practitioner community and share best practices to scale analytics organizations.

Capability Development - Invest in long term skills and capabilities that forms the basis for differentiation and value creation. There needs to be an innovation culture that will facilitate IP creation and asset development.

Value Creation - Building rigor to measure the impact of analytics deployment is very critical to earn legitimacy within the organization.

Big Data and analytics offers tremendous untapped potential to drive big business outcomes.

For organizations to leverage India as a global analytics hub can be one of the key levers to move up their analytics maturity curve.

Broad contours of DST initiated BDI programme

To promote and foster Big Data Science, Technology and Applications in the country and to develop core generic technologies, tools and algorithms for wider applications in Govt.

To understand the present status of the industry in terms of market size, different players providing services across sectors/ functions, opportunities, SWOT of industry, policy framework (if any), present skill levels available etc.

To carryout market landscape survey to assess the future opportunities and demand for skill levels in next 10 years

To carryout gap analysis in terms of skills levels and policy framework.

To evolve a strategic Road Map and micro level action plan clearly defining of roles of various stakeholders – Govt., Industry, Academia, Industry Associations and others with clear timelines and outcome for the next 10 years.

Important Areas of R and D are:

Natural Resources, Health, Education, Telecommunication like Mobile Drip Irrigation, Space Science, Remote Sensing and Technology, Environment Technology and so on.

About Funding Agencies:

- UGC, CSIR, DST, DIT

- Funds for
    - PG
    - M. Phil.
    - Ph. D.
    - PDF
    - Research Project
        - Young Scientist, Minor, Major or any novel idea
    - Publication
    - Travel Grants
    - Faculty Exchange
- Funding Schemes
    - University
    - Colleges
    - Both University and colleges
        - SAP, FIST, Innovative Program, Event organization
    - Indi usual
    - Women Scientist

Newly Announce, Obama Sing Funding scheme to exchange, Students, Faculty and even complete Department, with foreign Universities.

With this I conclude that hands are ready to support now only there is strong need of innovative ideas.

With this once again I express my sincere thanks to u all participants for your patience hearing. I am also thankful to Organizer for giving me this chance to share my views.

Thanks one and all.