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# NIIT University

A New Model in Higher Education

Rajendra Pawar Founder, NIIT University



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#### Showcasing Innovations of the Future

Higher education in India has transformed over time. Till a few years ago, the focus was to create centres of excellence to churn out qualified and technical manpower. IITs and IIMs reflected this trend. Now, the sector is witnessing an influential transformation. The Foreign Educational Institutions Bill has proposed to allow 100 % Foreign Direct Investment (FDI) in higher education thereby saving India billions of dollars in foreign exchange outgo. The Ministry of Human Resource Development also plans to set up around 14 Innovation Universities, aiming to promote a "brain gain" policy to attract talent from all over the world.

The recent trend has been for the government to promote the setting up of private universities. Entry of private players will probably pave the way for competitiveness in education delivery, although critiques view it with a skeptical eye. It has lead to wider choices for the students, the flexibility to choose and learn subjects of interest. The sector has started adopting and assimilating best practices, and is not shying away from experimenting with visionary ideas which are specific to the the needs of the learner and the market.

Industry front-runners are now paving the way for innovative and highly competitive, yet rooted and inclusive education models. Pioneers in the field, including Shiv Nadar - Founder and Chairman of HCL Technologies, Azim Premji – Chairman of Wipro Technologies, Rajendra Pawar – Co-Founder and Chairman, NIIT Technologies, and other education ventures from Vedanta, Apeejay and Reliance bring with them an enlightened vision on education. The current digitalLEARNING issue brings a detailed coverage of the NIIT University based on the visionary leadership of its founders and seeking to establish an institute par excellence.

N Jadhav, Member, Planning Commission, in his interview to digitalLEARNING, provides insights into the future of the education sector. He puts forth strongly that the reforms taking place in the higher education segment is going to place it on a higher pedestal and lead the way for the future. The NUEPA Vice Chancellor, Prof Govinda, elaborates on the role of technology in higher education research in policy and administration, and how NUEPA will be using the same for carrying forward its niche research on policy and practice.

digitalLEARNING seeks to highlight new and innovative models in education. The current focus on higher education reflects our commitment in exploring new ventures, dissemination of best practices, and providing a platform for unique innovations in the field.

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# **NIIT University**

# A New Model in Higher Education



NIIT University, formally inaugurated on November 15, 2009, is situated in the foothills of Aravali, in Neemrana, Rajasthan. The University is set to become an ideal example of learning in innovation, backed by end to end technical infrastructure in the lap of nature.



#### "Learn What You Want, How You Want, Where and When You Want. But Learn You Must!"

NIIT University (NU), a not-for-profit academic organisation, is a new and futuristic institution of higher learning. The University is committed towards bringing innovation in learning, in the emerging global knowledge society.

NIIT University is poised to develop around the Four Core Principles of providing Industry-linked, Technologybased, Research-driven and Seamless education. It promises to build great minds and original thinkers, besides ensuring exceptional job opportunities for all its students. The University is focused on developing learning structures that are technology-enabled and researchdriven, which will equip learners to solve problems in their daily lives.

According to research by NU, recruiters are increasingly looking for researchdriven minds that can bring more innovation into the workplace. Taking a cue from the industry, the University has designed each of its programmes in a way that students are drawn towards research through R&D projects, methodology courses and inspirational lectures by eminent professors and experts.

Formally inaugurated on November 15, 2009, the University is situated in the foothills of the Aravalis, in Neemrana, Rajasthan. The first public announcement about the launch of NIIT University was made on March 31, 2009 and the first session began from September, 2009.

The idea of the University was initiated in the '90s, but got mobilised when domain leaders from across academia and industry came together in 2005, and along with the initial Advisory Board, worked on the core principles and objectives of NIIT University.

The Founding Advisory Board members included, Prof P V Indiresan, former Director, IIT Chennai, the late Prof C S Jha, former Director, IIT Kharagpur, Dr Kiran Karnik, then President, NASSCOM, Prof R C Malhotra, former Director, IIT Kanpur, Dr R A Mashelkar, then Director General of the Council of Scientific and Industrial Research (CSIR), Prof. Ashok Misra, (who later became Director of IIT Mumbai), Prof J R Isaac of IIT Mumbai and Prof M P Kapoor, former Vice Chancellor, Thapar University, among others.

The 100 acre, fully-residential green campus of NIIT University is situated around 100 kms from Gurgaon and 130 kms from Delhi and Jaipur, on the Delhi-Jaipur NH-8 Expressway. The campus is equipped with state-of-theart technology, cutting-edge teaching methodologies and a strong research and development infrastructure.

NIIT University offers BTech Programmes in Computer Science and Engineering, Information and Communication Technology and Biotechnology; MTech Programmes in Pervasive Systems, Embedded Systems and Bioinformatics and Educational PhD Technology. programmes in Computer Science and Engineering, Information and Communication Technology, Educational Technology and Bioinformatics and Biotechnology are available to students.

The University has also recently announced its MBA Programme, a two year course that meets and exceeds the academic requirements of typical management degrees. The NU-MBA program aims to equip students with the new age skill sets required to seamlessly navigate through the challenges faced by today's business leaders , and also expose them to the vibrant Asian and African economy that are poised to become pivotal economies of the future.

The NU-MBA has a unique initiative by which every student is assigned a mentor from industry who guides him throughout the program. This has brought together 16 CEOs from some of the most reputed companies in the country. Names like Manoj Kohli (Airtel), Raghupati Singhania (JK Industries), and Bhaskar Pramanik (Oracle India) are a few who have agreed to mentor the NU-MBA students through structured personalised interactions. The Mentorship Program is supplemented by other distinctive industry-linked elements, so that students are immediately productive at their post-MBA jobs.

The programme encompasses 36 courses over six terms (trimesters), of which nine are Electives, and requires a specialisation in one out of the six Concentration Areas offered.

#### DRIVING TOWARDS A FUTURISTIC MODEL OF EDUCATION

The aim of NU is to provide students with occupational, spatial and temporal mobility demanded by today's globalised economy. It is about maximising the choices of students and giving them an all-round, holistic education with no artificial constraints. The academic structure and educational process at NIIT University are based on the Four Core Principles of providing Industry-linked, Technology based, Research-driven and Seamless education, derived from the best examples of the global knowledge society.

#### Industry-linked:

Extensive connectedness with industry is the hallmark of the NIIT University because of the focus on building great careers. This deep-connect is visible through initiatives of:

- Six months, or a full semester, devoted to Industry Practice for undergraduates or an Internship for post graduates ensures rich handson experience in the workplace
- Creating an advisory board constituted by industry experts and accomplished academicians, to update the curriculum regularly and ensure regular tutorials by industry professionals
- Encouraging students to participate in industry-sponsored R&D projects in the latest industry research
- Guiding students extensively in career development with the help of a dedicated career development team
- Establishing an incubation centre to catapult successful R&D projects into commercialisation by implementing them as live projects, or through patenting, licensing and technology transfer. Twenty-five acres (25% of the total campus master plan) is set aside for Incubation and allied activities.

#### Technology-based and Synchronous:

The NIIT University believes in using cutting-edge technology in all activities to improve transparency, convenience and to sharpen student's professional skills. NU ensures that:

 All its programmes cover the latest technological developments, so as to keep students abreast of industry developments

#### Four Core Principles of NIIT University

The founding philosophy of NIIT University is based on Four Core Principles that aim to establish a technologically-enabled University with a holistic learning approach.

#### CORE PRINCIPLE I: INDUSTRY-LINKED

NIIT University is focused on building extensive connectedness with the industry to remain more relevant and train industry-ready graduates.

#### CORE PRINCIPLE II: TECHNOLOGY-BASED

NIIT University is committed to using cutting-edge technology in all its activities to improve transparency, convenience and to sharpen the professionals skills of students.



#### CORE PRINCIPLE III: RESEARCH-DRIVEN

Creating knowledge-based education is the approach of NIIT University. Students from the orientation course are trained to examine problems through the eyes of researchers and innovators. NU's goal is to inculcate the habit of research, analysis and documentation in students and build a research culture on its turf.

#### CORE PRINCIPLE IV: SEAMLESS

Seamless is a word that is applicable to NIIT University academic programmes and operations, administrative processes and external linkages. Higher education in India needs reforms, that are tuned to the global knowledge society. NU will work cohesively in institutionalising seamlessness, and changing the prevailing practices in higher education within the existing regulatory framework.

- Synchronous learning technology is available, that brings students faceto-face with professors and industry leaders from across the world
- All students are provided extensive computing facilities, with over 1.3 nodes per student even in the first year and computer access throughout the campus
- There is seamless integration in administration, education delivery and assessments through online software to improve the administrative process and reduce paperwork
- An AV Studio transmits lectures from the campus to learning centres and facilitates the preparation of professional quality educational material
- Advanced IT-enabled science labs facilitate computer-assisted learning
- There is a readily available campuswide Gigabit LAN and universal Wi-Fi Internet, that provide anytime, anywhere access

#### Research-driven

At the NIIT University, creating knowledge starts from Year 1. Minds



trained to approach every problem through the eyes of a researcher are the need of the hour in today's complex and fast-changing Knowledge Society. This training of the mind is manifested through distinct attributes such as the habit of critical inquiry, hypothesizing, analyzing, experimenting, creatively discarding and documenting. NIIT University is building this 'research culture' through a variety of means:

- Courses like Problem Solving, Design of Experiments, Research Methodology and Scientific Method for BTech students
- Extensive R&D Project and Research Methodology courses for all PG students. Already four patents have been granted, eight patent applications are under review, and 29 papers have been published in international journals
- Guidance from highly experienced mentor professors in courses and co-curricular activities. Lectures by outstanding researchers are a part of the mentoring process
- Creating a research advisory board constituted by researchers in industry

and accomplished academicians, to advice and actively engage with NU on all research related matters

#### Seamless

Seamlessness is an all-pervasive concept that will manifest across the NIIT University program structure, curriculum,

## The Synchronous and Seamlessness Learning at NIIT University

academic

following:

credits

operations.

teaching-learning strategies, modes of education delivery and external linkages. Seamlessness is about maximising students' choices and ensuring that they receive all-round holistic education with no artificial constraints. The key dimensions of seamlessness to enhance the core student experience include the

> Students must construct a significant portion of their own curriculum. While BTech students select 23%, MTechs decide on 55% of their overall course

> More than 50 percent of the BTech curriculum comprises lateral

disciplines, including basic sciences,

Each students audits two cocurricular activities from physical

community engagement, crafts or

There are courses like Research

Methodology and Contemporary

technical

performing

integration across

humanities and languages

mathematics,

education.

languages

regulations,

knowledae

arts,

arts.



DR KARAN SINGH, Chairperson, NIIT University and Member of Parliament

"The concept of knowledge is increasingly being looked upon from a holistic rather than a sectional point of view. The rigid demarcation into departments and disciplines is giving way to inter-disciplinary approaches, whereby students can not only take advantage of the latest technology, but also ground themselves in our rich, pluralistic, multi-faceted spiritual and intellectual heritage. This green-field university being built by the creative team led by Rajendra Pawar and his colleagues, represents a new and innovative approach to knowledge in the 21st century. NIIT University gives a glimpse of what future education institutions should be. It is my hope and vision that one day this will become a unique centre of holistic learning, not only for India but for the whole world."

# The Eternity of the Mobius Ring



The power of knowledge is universal and eternal, 'Learn What You Want, How You Want, Where & When You Want. But Learn You Must!' - The emblem of the NIIT University depicts a mobius ring, symbolising eternity. The mobius ring greets everyone who enters the campus and takes a curve towards. the entrance of the academic building atop of a hillock. The sides of a mobius ring merge in and out, back and forth to create the most graceful, seamless and complete structure imaginable to the human mind. The ring is engraved with Anadi-Anant, an ancient concept implying that the Universe is eternal - without beginning and without end. Likewise, the knowledge that NIIT University imparts is the foundation for multifaceted careers, endless in their potential.

Issues to bridge a wide variety of disciplines within one single course

 The delivery of teaching is through a rich blend of methodologies including classroom learning, interactive learning, e-Learning, project-based learning and openended problem solving

#### UNVEILING THE CAMPUS EXPERIMENT ON SUSTAINABILITY

#### A Green campus concept

Conceptualised to be a financially, ecologically and intellectually selfsustaining campus, NIIT University is based on a master plan that was "The faculty that NIIT University is bringing in, is being put through a series of filtering processes. Only a PhD can apply for a faculty post. We want to build the University into a Centre of Excellence. The focus is on removing the silos, integrating the learning process into a seamless and synchronous one, and making NU a knowledge corridor of the future."

PROF M P KAPOOR Founding Vice Chancellor, NIIT University

developed over two-and-a-half years by YRM (London) Ltd., a world-renowned campus architecture firm. The designing concept was initialised on the basis of "Greening" of the campus and the adjoining Aravali range.

The campus is built on the naturally undulating land, and minimises fossil fuel consumption owing to its "Pedestrian Only" orientation. Most facilities in the campus are located within a short five minute walk. A shaded and rain protected 700m "Pedestrian Spine" links all the major buildings on the campus. This spine runs along the length of the campus and is conceived as an activity hub, connecting all student residential and social areas to its academic parts.

The campus has been constructed in a manner to minimize the use of electricity and the carbon footprint. This has been made possible with the Geothermal cooling system or the Earth-Air Tunnels, that pre-cool the air before it is supplied to the rooms in the summer. These also provide a degree of heating in winter. The unique system of ventilation helps in circulating the hot and cold air, cutting down the cost of electricity.

To conserve precious water, eight to ten bunds are being created which will harvest and store water from the surrounding hillocks. Extensive tree planting activities, such as "Greening of Aravali' campaign are undertaken regularly by NU students and faculty.

#### Building it thoughtfully

Designing an environment-friendly campus in Neemrana was an opportunity to explore a sustainable model in a difficult landscape. The campus is planned to house 7500 students (5000 resident students) and 500 staff families on a built area of 75 acres. The remaining 25 acres of land is reserved for an incubation centre, to commercialise the research undertaken by students and faculty.

The land on which the structure is constructed was originally barren land, without the basic facilities of water, electricity, sewerage and commuting. Rain and ground water are the only two sources of water. NU took up the challenge of transforming this hilly landscape into a comfortable and healthy campus that could be economically and environmentally sustainable.

The University has already started a project for greening the hillside beyond the site boundary. Native plant species that require little water have been sown. The baby plants are watered through the dripping method. It is a move away from a resource consuming "beautiful



landscape" to a more contextual landscape that the site can support. The natural depressions within the site are being developed into amphitheatres and sports arenas.

Individual buildings, both academic as well as administrative, will get constructed in a linear fashion in the campus, taking the concept of sustainability even further in terms of climate sensitivity and resource conservation. The buildings face the North-South direction, with minimal exposure to the west side, in order to avoid the heat. They are designed to be comfortably cool and dust free, without conventional air-conditioning. The focus is on natural lighting, and minimal use of artificial illumination. All the steps suggested in the master planning of the campus building demonstrate that financial sustainability can go hand in hand with environmental sustainability.

#### Community Connect

Community Connect is a unique programme introduced by the University where students are encouraged to engage with the community to help improve the lives of the surrounding population. The idea is to mould students into responsible citizens.

As part of this programme, BTech

students have been adopting the children from a local village school and taking individual responsibility for educating them through the use of technology. The students visit



DR RAJEEV SHOREY President, NIIT University

"We are committed to research driven coursework. Fostering research is one of the main responsiblities of NIIT University. The aim is to establish the missing links in the higher education sector in India. The parameters and quality checking will be done by a research advisory board set up by the University. Bringing quality in higher education is our fundamental challenge. We are strongly committed to the Four Core Principles of NIIT University."

the nearby Majra Kath Government School, as part of their ICET (Information, Communication, Entertainment) programme and help the school children to understand and operate computers using the Hole-in-the-Wall kiosks set up by NIIT in the school.

It can be said that sustainability at NIIT University is not just about environment and energy conservation, but also helping the adjacent community to develop.

#### 24X7 LEARNING AT THE CAMPUS

Students are the focus of the campus layout. In this fully residential campus, students are encouraged to protect their



environment. Each hostel room provides an amazing view of nature. The quiet and reflective rays of the setting sun create a meditative atmosphere. Students can sit under the vast and open sky and spend time with themselves amidst nature. As the campus is built on the undulating surface of the Aravalis, a natural depression exists on the site which has been developed into an amphitheater. Another such depression will be transformed into a sports arena.

"As I open my eyes in the morning, the rays of sunlight greet me. I check the day's schedule on my netbook and plan my routine. I carry the netbook with me during the day. As I enter the spine, I start capturing the moments of the day in my camera. I study, attend lectures, play, visit the neighbourhood community to teach computers to students, and spend time with my friends. In the afternoon I have my practical sessions at the laboratory. Later, I trek across the nearest mountain range and experience the gift of nature. As the sun begins to set, I make my pleasurable journey to the Asthachal. These are all the precious moments in my life. After I have caught them in my camera, I upload them on social sites and share them with friends and relatives," shares Pongsakorn Sujunnimit, a BTech, Computer Science student at NIIT University.

Life at NU is seamless and synchronous, and integrated with technology at every step. The students at NIIT University are provided with the latest in technology and exposed to all the required gadgets for 21st century learning. NIIT University features state-ofthe-art technology-enabled teaching and a strong research-focused curriculum, that's partially originated from NIIT's incubation lab, the Centre for Research in Cognitive Systems (CRCS). This winning lab, based on the IIT Delhi campus, has been gifted to NU by NIIT Ltd. It will serve as the first building block for the not-forprofit NIIT University.

# "NU will Address the Future Needs of Emerging Areas of the Knowledge Society"

www.niituniversity.in



RAJENDRA S PAWAR

FOUNDER, NIIT UNIVERSITY

NIIT University, a not-for-profit institution, has been established with the vision and mission to become a leading centre of innovation and learning in emerging areas of the Knowledge Society. Rajendra Pawar, Founder, NIIT University talks about the uniqueness and futuristic approach of the University.



"In a few years from now, India will be known for its innovation and research. In this century of the mind, the country will gain pre-eminence, owing to its holistic and seamless education, which is relevant to society and industry."

## What is the founding philosophy of NIIT University and how is it different from other universities?

NIIT University (NU) was established with the vision of being the leading centre of innovation and learning in emerging areas of the knowledge society. It is dedicated towards building great careers and ensuring exceptional job opportunities for all its students. The University has been developed as an institute of excellence based on the four core principles of providing Industry-linked, Technology-based, Researchdriven, and Seamless education.

The emblem of NIIT University depicts a Mobius ring, symbolising eternity. The sides of the Mobius ring merge in and out, and back and forth, to create a graceful, seamless and complete structure. Similarly, the knowledge that NIIT University imparts is the foundation for multifaceted careers, endless in their potential.

With NU, the intent has been to create a new model in higher education, which reflects what a 21st century University should be. The NU campus has been created in a way which will spawn ideas and original thinking amongst its students. To facilitate learning, there is cutting-edge technology and state-of-the-art classrooms that connect students to the world. At the Wi-Fi NU campus, students are equipped with all the gadgets and gizmos essential for learning in the 21st century. The focus of the faculty is on seeding new ideas, thoughts and feelings into students. The education provided to learners is not just restricted to their chosen stream. A computer science student for instance, is also exposed to botany, history, culture, art, anthropology, and music. The idea is to provide a seamless and holistic learning experience, that reflects the University's motto—"Anadi-Anant," (without beginning or end).

#### How did you initiate the planning phase for NIIT University?

While the NU may have started taking shape and structure only in 2005, the dream began as far back as in the early 1990s. In 2002, we created the first advisory board constituted by well known academicians, industry leaders and scientists. The board had luminaries like Prof P V Indiresan, former Director, IIT Chennai, the late Prof C S Jha, former Director, IIT Kharagpur, Dr Kiran Karnik, then President, NASSCOM, Prof R C Malhotra, former Director, IIT Kanpur, Dr R A Mashelkar, then Director general of the Council of Scientific and Industrial Research (CSIR), Prof Ashok Misra, (who later became Director of IIT Mumbai), Prof J R Isaac of IIT Mumbai and Prof M P Kapoor, former Vice Chancellor, Thapar University.

From the beginning we were very clear that NU would not be constrained by the mould of existing higher-education programmes. We wanted our students to solve real problems that affected the masses in the country, which is why the entire campus was planned like a research lab which would throw up interesting challenges for students to tackle.

The phase when the Master Plan of the University was created, was therefore extremely important. NU not only had to impart technologybased and research-driven training to students, it also had to be designed in a way that ensured sustainability. The campus had to be financially, ecologically and intellectually self-sustaining.

This actual planning of the campus was preceded by series of brainstorming sessions which resulted in evolution of the four core principles. This now finds representation in the very design and layout of the University. While the campus was being conceptualised, we focused significantly on Seamlessness, which is the reason why the academic and faculty buildings are barely a few minutes away from the lab. Designed to integrate with nature, NU is master-planned by YRM (London) Ltd., a world-renowned campus architecture firm. The unique 'pedestrian only' campus layout, ensures that cars are left at the parking bay near the entrance. From there the campus is comfortably explored on foot via the 'spine'- that meanders across all high traffic areas. The 700m spine runs through various building blocks and seamlessly unifies the campus.

The University's sensitivity to the environment finds resonance in its distinctive Geothermal Cooling, through a network of Earth-Air tunnels,

which act as an enormous self-regulating heat sink for the campus, with very little electricity required to cool or heat the ambient temperature. The design of the green campus incorporates one of the largest known earth-air tunnel installations in the world, and also harnesses wind chimney for a natural ventilation effect.

#### How does NIIT University fit itself in the current higher education structure and look into in the future?

With NU, we have tried to look into the future requirements of the knowledge society to establish a new model in higher education. This is backed by the knowledge and experience we have gained from delivering education over the past 28 years.

In a few years from now, India will be known for its innovation and research. In this century of the mind, the country will gain pre-eminence, owing to its holistic and seamless education, which is relevant to society and industry. NU is clearly ready for this tomorrow, today. With its focus on cutting-edge technology and research (an important pillar of learning in the future), NU will play a vital role in the knowledge-driven future. We have gone through the IT revolution, and now it is the time to transform higher education. We need many more Postgraduates. Research Scholars and PhDs to bring in this transformation. Clearly, NU, with its futuristic approach, will find a fit in the emerging, knowledge-driven society.

# What are the parameters that you look for when recruiting faculty for NU?

The fact is that we would rather encourage our own students, particularly the brightest ones, to continue their education until they acquire their PhDs and become NU faculty. Our aim will be to become a net producer rather than a net consumer, which means we have to generate more and more quality Research Scholars in the long run. We are looking forward to the revival of teaching as a profession, although currently, this trend is at a very nascent stage. The biggest criterion for determining the choice of faculty is their demonstrated love and passion for the subject. Visiting faculty is a critical part of the University. We have roped in educational innovators, top CEOs and entrepreneurs to interact and share their experiences with the students.

"With NU, we have tried to look into the future requirements of the knowledge society to establish a new model in higher education."

# What is your view on the challenges facing higher education in India? How can these problems be tackled?

The problem of higher education in India is both of quality and quantity. The gross enrolment ratio in India for higher education is only 11% versus 40% in developed countries. Also, the quality of education provided is not up to industry requirements. Studies show that not even one out of four graduates is employable. Thus the curriculum needs to be industrylinked to make the graduates day-one industry ready.

In my view, there should be liberalisation in higher education even before we talk about globalisation. Currently, our country has more than 20,000 colleges and 400 universities and we have to double this number. However, my suggestion is that we exhaust what we currently have and introduce educational reforms that help us achieve the highest returns on our existing resources. If we bank on liberalisation, the output will be doubled from the same set up, resulting in enhanced capacity.

## What is your plan to expand the capacity of the campus?

We are planning to add 500 students per year as of now. The total capacity of NU is 5000 students with full residential facilities. We decided to establish a 24x7 residential campus model as students of many disciplines and cultures residing in the same campus lead to a unique crossfertilisation of knowledge, and holistic, experiential learning.

#### What is your admission criteria?

NU seeks meritorious men and women with effective personalities and an inquisitive mind. The selection procedure at NU has been designed to identify such individuals. Due weightage is given to the academic background of the applicant as well as his/her communication skills and passion to learn. Even the application form is designed to facilitate the selection criteria by encouraging the candidate to describe his/her background, achievement, interests, motivation and career goals.

NIIT University employs a very

iudicious innovative and selection criterion which ensures that students with the desired potential get through. Our selection process gives merit not to a single exam, but the overall academic performance in school as well as to indepth interviews to judge areas like passion, potential and social sensitivity. Almost one-third weightage is given to the interview process, one-third to performance in the entrance examination and remaining to marks secured in 10+2.

The right kind of students with the right mind set will get attracted to NU's campus structure and curricula. The interview process at NU is aimed at showcasing the holistic learning at the University and its focus on the four core principles.

#### What inspired your current model?

Having delved into the area of education since over 28 years, we had insights on the gaps in the current system and the need for radical change. In India, there is a mismatch in what the industry needs and what the universities are creating. Our passion to make a difference gave birth to the idea of NIIT University in the early '90s. We wanted to set up an institution that would be an example of pioneering innovation in the area of higher education. The idea was to tell the world what a 21st century University ought to be.

Also, in this Century of the Mind, we wanted to bring back inquisitiveness in students. Inculcating the research mindset is not just about setting up labs but creating an environment that provokes thinking. We want students to solve real problems that affect the masses in the country.

It was with this in mind that we started afresh, literally from ground-zero, to put together such a model. NIIT University was formed with a vision to be the leading centre of innovation and learning in emerging areas of the knowledge society and has been developed as an institute of excellence based on the four founding principles of providing industry linked, technology based, research driven and seamless education. \\

# Technology for Educational Advancements

#### www.nuepa.org



"We exclusively concentrate on policy, planning and administration in education in its totality, starting from school education to technical education."

#### PROF R GOVINDA

VICE CHANCELLOR, NATIONAL UNIVERSITY OF EDUCATIONAL PLANNING AND ADMINISTRATION (MINISTRY OF HRD, GOVT. OF INDIA)

#### Kindly share with us how your university has an edge over other universities, with special emphasis on technology utilisation?

We are a small and very specialised institution. We are a university because of our specialisation. With reference to the aspects that separate us from other university is - firstly, we exclusively concentrate on policy, planning and administration in education in its totality, starting from school education to technical education. Secondly, at our university we keep one foot in theoretical studies and one foot in practice, since, our mandate is to provide technical support to the state and the central government. This makes us unique and also takes us very close to the field every time. Thirdly, we do extensive research work. We were considered for passing as a university only because of our research status. We are not a teaching university. We regularly bring out the data based research and we also have a very strong data base development system, education information management system. We regularly bring out District Information Support for Education (DISE) which you can also avail online.

# Are the technologically enabled courses/ researches a recent development at NUEPA?

No, we have technology based courses running since a long time now.

I don't think in India we have made much headway in ICT integration in education, with least in higher education and partially in school education. What is projected is only what the vendors want. If we do not have a proactive thinking as to how and where we want to take ICT in education, then the market will not only sell us but also tell us, what we should do with it.

We began this work of producing data base for elementary education in 1995 or 96. We have developed Education Development Indicators, which are now used for classifying districts. All this has been possible because of use of technology. We are able to put the data for public use in less than a year's time.

# What do you opine about the budget for the current year, for education sector?

Budget that the finance ministry gives is never enough. With RTE rolled-out, I feel the allocations to school education are less than what we had expected. I can say that 2/3rd of what we wanted has been allocated, they should have given INR 10,000 crores more. Since NUEPA has completed the financial aspects for RTE, our expectations was more allocation to meet this years annual requirement. So what we are suppose to do is utilise the given resources judiciously. But finance is not the only aspect that supports development. Additionally, for both elementary and higher education, today there is a huge money flow otherwise also. I think 11th Five Year Plan as huge allocations for higher education, if you compare with past. The problem is that we are unable to demonstrate progress in educational institutions and, therefore, it is a problem to show where we want to use the required money. For instance, school demands money at macro level but at micro level they do not know where they want to use the demanded money. It is just about working efficiently and effectively.

# What are the approaches that NUEPA has adopted for capacity building and are there any collaborative initiatives you have entered nationally and internationally, recently?

Capacity building is one of our core activities. Every year we do upto 50 training programmes, bring people from all over the country. Every year we do ta diploma programme in Education Planning and Administration. Every course that we organise here has a technology component. We also have an international diploma programme which is currently going on. We have 34 students from 25 countries for this 26th International Diploma Programme. We have students from Jamaica, Cuba, Fiji, Sri Lanka, Russia, Maldives and so on. We have a resource lab that can accommodate 30 students at a time, who can avail online access to educational resources. We have computer and training lab with 35 computers and wi-fi.

As far as research is concerned we are known internationally, we have been collaborating with a wide number of institutions. We have been associated closely with International Institution for Educational Planning, for course delivery and many other things. Some of us have teaching in Institute of Education, London. At presnt, we are doing a research study in field of Higher Education with Stanford, which covers BRIC countries – Brazil, Russia, India and China. Also, many of our studies are done nationally where we have participation from multiple states.

# Kindly share with us any one experience you had working in collaboration for any agency.

For instance, RTE, preparation from initial to final draft and then computing the financial requirements for that, the formulations of the rules and regulations, preparing report for harmonising SSA (Sarva Shiksha Abhiyan) and RTE - we had a major role to play. Infact, the next task which we have in hand is to prepare a model code for a state for school education, as they have to match expectations of many of the codes and acts, that are very old. Thats the kind of work we do - research, participation in planning, conduct orientation and training programme and advocacy. Recently, we had a programme for the urban deprived. We had 35 NGOs across country coming together, to deliberate upon how to take the programme further. So we work with NGOs also, as they are the voice of the civil society. We might be full funded by government of India, but we work as autonomous body. This gives us strength as a university. No other university can claim that they work in this fashion.

#### What are the opportunities and challenges that we face with respect to ICT integration in the education sector?

We have only challenges. I don't think in India we have made much headway in ICT integration in education, with least in higher education and partially in school education. What is projected is only what the vendors want. If we do not have a proactive thinking as to how and where we want to take ICT in education. then the market will not only sell us but also tell us, what we should do with it. They will say that we are advising you but they will sell us. Higher Educational professionals. I think are least literate when it comes to use technology, as they do not understand the relevance of using technology.

I think we need to change the mindset of the higher education intellectuals as to how technology can transform the ways in which we can teach and learn. I don't think there is adequate awareness in higher education sector, and therefore, that creates a gap between technology and our lives, which has moved by leaps and bounds; and technology and education which is still in 19th century, speaking figuratively. We need a massive advocacy which is not commercial, not by vendors. They make presentations in ministries and us. They are interested in selling their hardware and maybe also give their outdated software. Softwares need to be dynamic and produce contextualised software and many of them think that producing online guide books, that is, books in e formats is school education technology. I think that is what they should not assume. That is not ICT. ICT is too versatile! \\

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**NEWS** 

#### EDUCATION DEAL BETWEEN INDIA AND AUSTRALIA



Human Resource Development (HRD) Minister Kapil Sibal on 8th April 2010, made an agreement as the two countries India and Australia signed an education pact. Indian students continued to come to Australia for higher studies and the government had not discouraged them for doing so. An India-Australia Education Council comprising experts from both countries will now be set up. Sibal also reported that he believed the attacks on young Indians

had declined. A media report said it was recently revealed that international student numbers were down nationally three percent and 12 % in Victoria.

## IGNOU AT LONDON AND PARIS

The Indira Gandhi National Open University (IGNOU) is now spreading its wings not only at national level but also internationally, as a part of its plan to spread across the message of education. The university is set to start its centre in London from July this year that aims to



offer undergraduate and postgraduate programmes. According to the officials, after London, Paris would be the next destination for expansion. It was also reported that the London venture, despite the university's experience in running centres abroad, might not prove to be an easy task as it is expected to face a tough competition from the UK Open University (UKOU).



## 300 SCHOOLS TO BE ESTABLISHED BY ZEE ACROSS COUNTRY

Zee group, known for providing entertainment and news, recently, announced that it plans to set up 50 schools in just one year across the country and aims to set up 300 schools by 2015. The Chairman of the group, Subash Chandra, mentioned in a statement that within a year the group has set up 50 schools and that it is a strong step being taken towards

enhancement of the country's human capital by making children realise their own respective potential. The company had already laid out an investment of INR 350 crore for setting up schools and developing innovative learning content.

#### JINDAL GLOBAL UNIVERSITY AND CAMBRIDGE UNIVERSITY SIGNED A REVOLUTIONIZING EDUCATION PACT TO IMPROVE THE EFFICIENCY OF POLICE FORCES IN INDIA

O.P. Jindal Global University and Cambridge University signed a formal pact, at New Delhi recentally, to train and teach IPS officers for a knowledge based policing system in India. The course designed by eminent scholars, researchers, academicians from the field of Law and Crime from Cambridge University and JGU would be for the enrichment of the IPS officer which in turn would benefit the entire police force and the society at large. The Ministry of Home Affairs, Government

Indian partner, O.P. Jindal Global University.



of India has awarded this training contract to Cambridge University working with its

## SAM PITRODA SPEAKS ON NEXT ICT WAVE IN INDIA

While sharing his views on impact of ICT on Indian society and the next phase of ICT revolution, through a video link from Chicago, Sam Pitroda delivered a keynote at the recent c o n f e r e n c e



Microsoft Tech.Ed developer, held in Bengaluru. He described that the ICT revolution in India is about to enter into its second phase that would be based on broadband, data, applications, processes and new infrastructure. This would change the nature of education, health, government services, public delivery systems available in India. He elaborated that in the next two decades information is to play a critical role in restructuring a lot of development in India.

#### NEW DIRECTOR AT BITS PILANI

With effect from April 16, 2010, Prof G Raghurama, Professor in the Electronics & Instrumentation Engineering at Birla Institute of Technology and Science (BITS), Pilani has been appointed as the new Director of the Pilani campus of the Institute. He has completed his M.Sc from Indian Institute of Technology, Madras (IIT-M), and PhD in Physics from Indian Institute of Science, Bangalore. Later he joined BITS as a faculty member in 1987. He has been the Deputy Director (Academic) in the Institute since January 2007.

#### STATES PUSH CENTRE TO EXPEND FOR RTE IMPLEMENTATION

The government is constantly facing demands from many states to pick up bulk of the multi-billion tab for implementing the landmark Right to Education Act, that includes other key challenges such as teacher shortage and infrastructure lacunae. It seems that most of the state governments want the centre to increase its proposed share from 55% to somewhere in between 75% and 90%. Bihar and Arunachal Pradesh want the centre to provide 100% funds.

# PPP a Must for Growth of ITIs and Polytechnics

#### www.planningcommission.nic.in



## What are your views on Right to Education Act (RTE) ?

The passage of the Right to Education Act 2009, which came into effect on 1st April, 2010, is indeed a historic act. It comes as a continuation of the Sarva Shiksha Abhiyan which has attained a remarkable amount of success. If we examine the proportion and the numbers, out of a total of 12 lakh habitations, more than 99% have a primary school in the vicinity or within one km radius. Similar is the proportion for elementary education, with 84% of habitations having an elementary school within 3 km radius. The RTE is a remarkable extension of the efforts in education. It is too early to comment anything about the functioning of the act since it is too short a time. But I have absolutely no doubt that this historic decision is going to be very meaningfully, faithfully and forcefully implemented.

# What according to you are the priorities for India in the realm of vocational training and skills development?

Skill development initiatives have to be given high priority today. India's demographic dividend is definitely a positive aspect, with 24 being the "The best practices are not usually adequately disseminated for people to learn. This is precisely why the Planning Commission comes out with several reports including annual reports and highlights these practices. Increasingly, technology is playing a role in all these efforts."

#### DR NARENDRA JADHAV

#### MEMBER, PLANNING COMMISSION

average age of India today. By 2020, it will be around 29, by which year China's average age will be 37, Europe will be 42, US will be 37 and Japan will be 48. Thus, we are a young, large and growing population. But just having such positive attributes does not mean that we will automatically become an economic superpower. Development of the country critically depends on two things: First, a reform in the education sector; and second, in the skill development sector.

I have often emphasised in the last few months that if we do not get our act together in the higher education and skill development sector, our demographic dividend can actually turn into a demographic nightmare. That is how important skill development is. The government is taking efforts in this direction very seriously.

#### How can convergence be ensured between higher education and skill development?

As has been rightly noted, only 2% of our population is skill trained. The vocational education in our country needs a lot of intervention. In practice, vocational education can be imparted at two levels: one is at the high school level; and the other is at the post matric level. At the high school level, ITIs become relevant, while at the college level, polytechnics come into play. Both of these are going to be enhanced in a major way. The Public Private Partnership (PPP) model will add momentum to the growth of ITIs and Polytechnics. Several boards have been set up including the PM's Apex Council of Skill Development and The

The Kothari Commission had stated that 6% of the GDP should be spent on education. With all the lofty talks, we have still not gone beyond 3.5%. And within this, the center's share has been increasing, while that of the state is decreasing.

National Skill Development Coordination Board, of which Montek Singh Ahluwalia is the Chairman. The Skill Development Corporation has been created in the PPP mode which is making good contributions in the field. Therefore, we see that the agencies have been created but it has not yet gained the necessary momentum, which I trust it will. The Prime Minister has also written to the Chief Ministers of all states urging them to start their own skill development mission. Many states are moving in this direction. By year 2022, the vision is to have 500 million trained personnel.

#### What according to you are the loopholes in the existing regulatory bodies such as UGC, NCTE and AICTE?

As the National Knowledge Commission (NKC) and the Yashpal

Committee have unanimously pointed out, the higher education sector in India is over regulated but under governed. There are too many regulators, but the level of governance is very low. That is the kind of paradoxical situation that we are currently dealing with. There is no synergy between AICTE, UGC, and various other councils and the level of their operations have taken a big beating. These have direct bearing on the higher education system in India. The NKC and the Yashpal Committee recommended a complete overhaul of the higher education system, and not just a nip here and a tuck there. The NCHER is a step in that direction and it will bring about drastic reforms in the sector.

In future, we have the potential of exporting our human capital even to China since there is shortage of skilled labour power emerging everywhere, of which there is a surplus in India. If we train the youth in the right kind of skills, India can emerge as a very important reservoir of technically trained manpower, which should be our dream and future goal.

#### The new poverty figures were officially approved by the planning commission recently. India has added almost 100 million people to its list of the poor. What are your views on the growing economic development of India and its implications on the poverty conditions?

The poverty numbers do not show an increase. Rather, the techniques or methodology of computation used by the Tendulkar committee is different from the methodology used earlier. The estimates made by the Tendulkar methodology cannot be compared with separate methodologies which were previously used. It is only the figures generated from the same methodologies that can be compared, and if we compare likes with the likes, we see that the incidence of poverty has actually declined.

#### How do you envision the Indian education system with respect to implementation of ICT tools for enhanced delivery in the coming years?

Technology plays a very important role in education. I was the Vice Chancellor of the Pune University which happened to be the largest traditional universities of the world. The moment I assumed office I realised that there was

no Management Information System (MIS) in the University, which had a bearing on the level of governance of the University. Pune University has 536 colleges and a huge student population. Lack of technology resulted in non-connected campuses, with administration being run in an archaic mode. I came up with the concept of triple connectivity solutions, with audio, visual and data connecting the main campus with the 536 colleges. This had positive consequences, since the policy decisions made by the Vice Chancellor were then based on facts and figures that were regularly updated from the disparate but connected campuses. It inevitably have an improvement over the quality and level of governance. That model is being replicated everywhere. Therefore, systems hve to move hand in hand with the advances in technology. Technology will have a definite effect on education governance.

#### With India set to welcome foreign varsities, what are the challenges and opportunities that you figure in the situation? How important are Public Private Partnerships in promoting quality education in India?

India's Gross Enrollment Ratio (GER) in higher education is only 12.4%. Earlier we were talking about increasing it to 20%, but now we want to raise it to 30% in 10 years time. If this is our target. then we need to expand everything from state universities to central and private universities, as well as allow foreign universities to come in. An all out effort to raise the GER is required. As a part of that, foreign universities will be allowed to come in and also act as competition to the local players, thereby upgrading quality of Indian universities. If we administer it properly and if we make sure that the right kind of universities come in, it will have a huge positive impact.

History is unfolding before our eyes today. It is my belief that in the last 62 years, there have never been so many proposals for education as there are today. In the next few years, the Indian education system is going to be completely transformed and it will be a system that will last for the next 30-40 years. Today the kind of all round reforms that are taking place including the Foreign Regulators Bill, National Accreditation Regulatory Authority, Tribunals at the state and central level, Prevention of Malpractices Bill, and several other proposals which are at various stages of implementation, will act as the harbingers of change.



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# Technology in Education Taking Literacy Forward

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"We would need technology because we do not have enough teachers. We are not talking about education at this moment, we are talking about access to quality education and equal opportunities."

#### DR SHYAMA CHONA

PRESIDENT TAMANA, EX-PRINCIPAL DPS RK PURAM, PADMA SHRI AND PADMA BHUSHAN AWARDEE

Please comment on the changes that are being introduced by technology application in schools, with respect to capacity building amongst teachers and students.

Talking in terms of mainstream education, India is the youngest country in the world and our number of kids outside school is estimated to be almost one crore. And if we really want to bring them into school, in line with the Right To Education bill, then we need millions of teachers and trillions of schools. Education is not like building airports or roads, where you have Public Private Partnership and things can just emerge. Education is a long term investment. Results can be seen after 14 years of a child joining school. The problem is that unless we use technology we can not educate our children, whether they study in centres or schools or studying from home. We would need technology because we do not have enough teachers. We are not talking about education at this moment, we are talking about access to quality education and equal opportunities. So the need is so huge, so we need technology which is one of the solutions.

Now whenever we talk of technology, we talk about cost. Then are raised the questions about who is going to bear the cost and how is it going to be used. I still think that in the absence of very good trained, quality teachers to teach this age group, where we want to retain the children. You know the findings are that out of the number of students who enter school, only two percent are able to reach the university level. So surely, there is something more than the employemnt factor which is taking kids away from school. It could be bad teaching, bad curriculum, it could be anything. So to retain kids there you have to make learning interesting and fun; and have outcomes which would lead to life long learners as per the UNESCO. Therefore the role of technology is very important.

#### What is the scope of ICT capcity building amongst mainstream and special schools?

The opportunities are immense. These are greater than the challenges but it depends on the investment again. But the government, does not necessarily I am not advocating that tools should replace the teacher, but surely it can supplement the teaching, becasue one of our biggest concerns is that when a child enters a school he should stay there and not leave school. So if your lessons can be made audio-visual enabled, it helps.

invest into hardware. Companies like Educomp solutions, which are doing very well, they are providing the hardware, they are also providing the content and digital tools. I am not advocating that tools should replace the teacher, but surely it can supplement the teaching, becasue one of our biggest concerns is that when a child enters a school he should stay there and not leave school. So if your lessons can be made audiovisual enabled, it helps. I believe in a word called VARK which stands for Visual, Audio, Reading and Writing and Kinesthetics, which is human relationship between the teacher and the taught. And if these four principles are followed in school we can become a great country. 5-10% of the population getting excellent population is holding the world. You go anywhere around the world, if there is an Indian there you will see that she/he is able to hold that position in the given enterprise in a very efficient manner. I think we have huge potential, we have great capacity but what we need are resources and those resources can be harnessed with good planning and good attitude.

Additionally, we have large percentage of government school and a small percentage of private schools. So, that large number of government schools must have quality. There ICT is being introduced and in places like Kendriya Vidyalaya, I am on the board of their Samiti, if they can provide for ICT infrastructures, so can the rest of the government schools. I think we need a quality where many factors are to be brought together and we need campagning for children who are out of school, we need awareness and need to meet their parents for advocating need for educating children. We need to, also, encourage teaching as a profession.

#### Do you think that the current allocation in Budget on elementary education will help in extending financial support to ICT programme in the country?

Well I think the allocation should have been much more. It has increased

from approximately 3.4-4% to 5-6%. But a six percent for a 40% population is really not the desired ratio. If you want this country to use all the roads and the airports, whatever development plan it has involved itself into, unless the population is educated, they are not going to use them properly. I think education is not just about literacy. It is also about an enlightened life. It is about a healthy living. It is about utilisation of total resources of our country and therefore, I firmly believe that they should spend more money on education and related services.

#### Currently, there is a PPP trend in vogue. Do you see any implications in terms of opportunties and challenges such partnerships offer? Is there any initiative on same steps, taken by institutions you have been associated with?

I am on board of PPP of the Planning Commission, with HRD, so the private players are ready to take initiatives and ready to put in money, but, nobody is going to put in money unless they see some returns coming out of it. And education investment is not one time investment. It is a long term investment so you can't show results immediately, because human indexes build over period of time. Therefore, I think the ministry and planning commission have already set aside some amount of money to provide back-up financial support. But even if a private initiative builds a school and runs it, what the government says is that they will pay for the thousand children who come from the special category or special classes, as we call them. But what we are saving is that start these initiatives from class one and not class six, becasue the best age to learn is at the earliest. So what we are saying is that whatever the cabinet sanctions should be implemented at the earliest.

There is a vast difference in education provided by the government and the private initiatives. You can not always do what they do. While I agree that some government initiatives are really doing good, around 72% of the government schools are really in a sad state.

We are run by examinations, degrees and diplomas, but what is the quality that we get. So my concern is for the quality of education. I believe it is only through digitalisation and ICT implementation that we can overcome the issues of quality. And this happens when the child is with the computer: he is with the world. For speech, we have programme from IBM, where the kids who do not use their lips, tongue and blow air, if blow at the computer trees come, if they blow more and harder then more trees come, if they blow more the birds start twittering, so the images become more detailed and large. The technology plays a huge role in literacy and spreading awareness. One to one interaction between teachers and students is very important but the research oriented technology programmes on screen are all the more important. IT is one tool that interests students and supports them to do much better than otherwise.

# Is ICT implementation of any consequence for educating childern with special needs?

We already have very few trained teachers for catering to education of the children with special needs. It takes long to get them ready. We have tried at Tamana three IT projects for Autistic, Dyslexic and also for others. And we are surprised that kids do exceptionally well with the IT aids. For instance, I have a HP computer with a touch screen. So I can have a child sitting with me right here to work on it, knowing that he can touch and get sounds, colours, pictures, he can click picture of himself or you, and he doesn't require the traditional form of teaching, where you make him sit down and teach him alphabets becasue for children with special needs you need to teach them the content which is not age relevant but their intellectual state specific. You have to make them believe that they are worthwhile and capable of doing things at their own pace. If I may say, children today are apparently born with their own mouse and windows. We just need to capitalise on their capabities!

# Technical Capacity Building ICT Inculcation in Teacher Education

#### www.ncte-india.org



PROF MOHAMMAD AKHTAR SIDDIQUI

CHAIRPERSON, NATIONAL COUNCIL FOR TEACHER EDUCATION

"The NCTE announced its resolve to take a number of initiatives to regulate the growth of teacher education institutions in the country and to ensure maintenance of norms and standards in these institutions. The norms and standards have been revised based on felt need."

#### What is the philosophy/mandate behind NCTE that guides it to regulate and maintain the norms and standards in Teacher Education System?

The National Council for Teacher Education continues to vigorously pursue the mandate given to it by the Act of Parliament to achieve planned and coordinated development of teacher education and to regulate and maintain norms and standards in the teacher education system across the country. The functioning of the Regional Committees of the NCTE which are primarily entrusted with the responsibility of dealing with all cases of recognition, as per the procedure laid down by the Rules and Regulations framed under the NCTE Act. has been streamlined with close monitoring so as to achieve the desired results. Detailed scrutiny of the applications and strict adherence to the norms and standards has resulted in a higher rejection rate. The NCTE has adopted zero tolerance policy in this matter. Since the Regulations provide for a mechanism of Appeal under Section 18 of the NCTE Act, the higher rate of rejection of applications for recognition has resulted in a large number of institutions opting for the appeal mechanism.

Adoption of the principle of strict adherence to norms by the Appeal Committee has resulted in higher rejection rate of appeals as well. Strict adherence to norms and standards has pushed the NCTE into an unenviable situation. It has been left with no alternative except to plead before various High Courts in the country, where applicants are staking their claim to get recognition to their proposed institutions somehow. In order to achieve its mandate of planned development of teacher education in the country, the NCTE has to take an impartial but principled stand to check the growth of substandard teacher education institutions at the formal entry point itself i.e. the point at which recognition is accorded.

The NCTE announced its resolve to take a number of initiatives to regulate the growth of teacher education institutions in the country and to ensure maintenance of norms and standards in these institutions. The norms and standards have been revised based on felt need. The new Regulations and revised norms were approved by the General Council of the NCTE on 2nd June, 2009 and these were notified, after legal vetting by the Ministry of Law on 31st August, 2009. This exercise incidentally helped the NCTE carryout the directions received from the Ministry of Human Resource Development under Section 29 of the NCTE Act to review its Regulations, 2007. A year to year ban has been imposed on opening new teacher education institutions in some such states where already these institutions are in excess of the requirement.

With a view to bring transparency in the processing of applications from this year all applications are received online only. Institutions are being informed about the processing status of their applications online. As part of a drive to weed out substandard teacher education institutions recognition of several hundred sub-standard institutions has been withdrawn during the last one year after following due process of law.

#### What are the opportunities and challenges that are being presented by our current education system, with special reference to teacher training ?

Teacher education system has a number of challenges and opportunities. The challenges include -

- Experiences in the practice of teacher education indicate that knowledge is treated as 'given', and accepted without question; there is no practical engagement with the curriculum.
- Language proficiency of the teacher is not satisfactory and it needs to be enhanced.
- Teacher education programmes provide little scope for studentteachers to reflect on their experiences.
- Disciplinary knowledge is viewed as independent of professional training in pedagogy

The National Council for Teacher Education continues to vigorously pursue the mandate given to it by the Act of Parliament to achieve planned and coordinated development of teacher education and to regulate and maintain norms and standards in the teacher education system across the country.

- Repeated 'practice' in the teaching of a specified number of isolated lessons is considered a sufficient condition for professional development
- It is assumed that links between learning theories, models and teaching methods are automatically formed in the understanding developed by student teachers
- There is no opportunity for teachers to examine their own biases and beliefs
- Theory courses have no clear articulation with practical works and ground realities
- The evaluation system followed in teacher education programmes is too theoretical, excessively quantitative and lacks comprehensiveness.

In order to address these challenges NCTE has developed a new National Curriculum Framework for Teacher Education – NCFTE-2009.

- The NCFTE- 2009 presents an updated, contextual scenario in which Teacher Education needs to function and evolve.
- Motivates a move towards professionalization of teachers
- It has highlighted an integrative and eclectic approach to Teacher Education, aimed at empowering teachers to respond to changing contexts.
- Presents a portrait of the teacher as someone with the ability to reflect, adapt and innovative in a range of circumstances.
- Strongly recommends shifts towards more modern pedagogic approaches that incorporate constructivist insights as well as critical pedagogy.
- Concerned with integrating theory with practices.
- Need for a comprehensive course framework for an initial teacher preparation programme.
- Indicates the importance and need for enhancing language proficiency

and communication skills of teachers.

- Emphasis on content cum pedagogy approach.
- Suggests the idea of setting up Teacher Learning Centres, to bridge the various needs of both preservice teacher education and inservice teacher development.
- Both qualitative and quantitative evaluation emphasized.

#### Do you think collaborative partnerships under Public Private Partnership models are beneficial for the education sector? Has NCTE entered into any such partnerships ?

Privatisation in teacher education in our country has led to large-scale commercialization. Public-private partnership model to be beneficial needs to emphasise quality improvement within the existing norms and standards of NCTE. NCTE is basically a regulatory organisation and does not conduct any teacher education programme alone or in collaborative partnership under Public Private Partnership mode.

However, for professional development of working teacher educators it has entered into an MOU with INTEL Teach Programme for training of teacher educators in ICT integration in teacher education. The MOU execution is in progress.

#### Can you highlight some of the programmes and initiatives of NCTE that can serve as success models for other institutes offering Teacher Education.

NCTE has developed National Curriculum Framework for Teacher Education (2009). Following NCFTE(2009) NCTE is in a process of developing model syllabus of teacher education at various levels and model institutional materials for student teachers at different levels. NCTE emphasises the need for integration of ICT in all teacher education programmes. Statistically speaking, can you give us brief on the numbers of teachers indemand and in-supply, respectively, at primary, secondary and senior secondary level.

#### Kindly brief us about the norms and standards that you apply while providing candidates with training and evaluating the skills they gain after training.

Detailed statistics on demand and supply of teachers is being compiled and will be available for reference very shortly. The launching of Sarva Shiksha Abhiyan, Rashtirya Madhyamik Shiksha Abhiyan for elementary education for universalization of secondary education has boosted the demand for teaches. However, various State Governments, have communicated to the NCTE in view of the number of teacher education institutions in their States, that no new institutions be granted recognition by NCTE. It is in this context that the NCTE embarked a study on "Demand and Supply" Estimates of School Teachers and Teacher Educators from 2007-08 to 2016-17 in 2007. The feedback received from various State Governments about the requirement and availability of teachers in their States, the NCTE has decided not to grant recognition to proposed institutions in Uttar Pradesh, Harvana, Rajasthan, Maharashtra, Gujarat, Andhra Pradesh, Karnataka and Kerala. A Public Notice to this effect has been issued by the NCTE. A similar notice for some States was issued last year. This decision to regulate further growth of teacher education institutions in several States is at present for a period of one year only but a definite decision shall be taken in respect of all the States, after the complete set of reports on the demand and supply study is available.

National Curriculum Framework for Teacher Education (2009) highlights the skills the student-teachers are to acquire during training. Each examining/ affiliating body develops its own curriculum for different teacher education programmes in the light of NCTE's Curriculum Framework. \\



The Indira Gandhi National Open University (IGNOU), for the past 25 years, has contributed significantly to the development of higher education in the country through the distance mode. Open and Distance learning is not just about giving degrees and diplomas, it's giving access to information to the Disadvantaged sections of the society. Giving access and quality education to the youth is not possible with just formal education. Access can happen only with the help of technology, like Virtual labs and interactive teaching. The linkage between learning and livelihood can be enhanced through Open and Distance learning and IGNOU is contributing to the dream of a Global Knowledge based society.

# A Dioneer in Open and Distance Education

Empowering Society through Need-Based Education. Blended in Open & Distance Learning and Face-to-Face modes.

## Inviting applications for admission in

Doctoral, M.Phil, Master's, Bachelor's programmes, P.G. Diploma, Diploma, PG Certificate, Certificate & Other Programmes

Flexible learning options and wide accessibility make Open & Distance Learning (ODL) and Face-to-Face mode a unique way of education given to large target group of learners. The system has gained mass acceptance. IGNOU through its trained and skilled personnel in ODL is making knowledge accessible to everyone and everywhere making it one of the largest universities in the world.

#### IGNOU is the apex body of Distance Learning in the country

- ✓ Imparts education and knowledge through various modes of Open and Distance Learning (ODL) systems
- ✓ Encourages, coordinates and promotes Open Universities and Distance Learning pedagogy
- ✓ Assesses quality of Distance Learning imparted by other Open Universities and determines their standards
- Provides value-added concepts of educational empowerment towards national integration
- ✓ Strengthens natural human resources of the country through educational empowerment with a view to ensuring access to higher education from its current 10% to 15% among youths
- Capacity building of primary education personnel under Sarva Shiksha Abhiyan

#### **IGNOU** Factfile

Over 2.7 millions students
62 Regional Centres
2,340 Learner Support Centres
Presence in 34 Countries
328 Programmes
Over 3,500 Courses
12 Centres
21 Schools of Studies

#### State-of-the-art Education Facilities

48 Mbps connectivity
Webcast, Telecasting
Videoconferencing
Mobile Telephony for Learning
E-Governance
Enterprise Resource Planning (ERP)
EduSat, Gyan Darshan, Gyan Vani channels
Providing Infrastructure, Facilities & Content for Management courses to 53 African nations through TCIL E-Pan African Network hub at Addis Ababa, Ethiopia
Chair for Satellite Education
Chair for Technology-Enabled Learning

#### **Trend-Setting Initiatives**

- ✓ For 400 Community Colleges, to offer Associate Degrees within current Plan
- ✓ With four Union ministries for capacity-building programmes for both formal and informal education of BPL people
- With ministry of labour and welfare for a slew of capacity building programmes
- ✓ With states for training in-service teachers under Sarva Siksha Abhiyan scheme
- ✓ On Demand Exam Walk-in Admission Answerscript Revaluation
- Broadband connectivity to all centres.
- Centre for Advanced Innovative Informatics at learning and pedagogy

#### **Public Private Partnerships**

- ✓ Confederation of Indian Industries (CII) for educating and training youths to build up their employability
- Security Skills Council of India (SSCI) to train and build up reserves for continuous inflow of trained security personnel to industries
- Rainmaker for building up trained human resources among people engaged in the profession of Law for Legal Process Outsourcing
- Confederation of Manufacturers Associations of India (CMAI) for low-cost mobile handsets to reach the rural poor and disadvantaged through Mobile Telephony
- Commonwealth Educational Media Centre for Asia (CEMCA) for developing Community Radios for improving professional lifestyles of the disadvantaged and marginal worker groups
- Accenture for launching programmes in BPO for creating tertiary sector job opportunities for youths and training them on-the-job
- ✓ Retail Association of India (rai) for training and educating youths willing to join retail chain management and industry

#### International Collaborations

- ✓ For German Language with Max Muller Bhavan and Goethe Institute of Germany
- ✓ For Japanese Language programmes with Embassy of Japan
- ✓ For Persian Language programmes with Embassy of Iran
- ✓ For Spanish Language programmes with Instituto Cervantes
- ✓ For Dual Degree and PhD programmes with Queensland University, Australia
- Deutsche Welle Akademie for a slew of annual training programmes in Journalism for working journalists and mass communication students
- ✓ Project Management Association, Geneva for project management programmes
- ✓ The Foundation of Educational Partnership, United Kingdom
- ✓ University of Central Lancashire for Sign Language programmes for deaf and speech-impaired

Solution Contact : Indira Gandhi National Open University Maidan Garhi, New Delhi - 110 068

Walk-in/ Online Admission



Round the year admission

# Empowering Through Technology - NASSCOM Foundation

#### www.nasscomfoundation.org

NASSCOM Foundation (NF) has spearheaded many programmes that leverage the power of ICT for the benefit of the society and development of communities as a whole.

NASSCOM Foundation works as the catalyst between the IT-BPO industry and the society by making opportunities accessible to the grassroots. NF has in India grown in terms of number of states it operates in and the number of organisations and individuals impacted. It has ensured to sustain a relevant purpose and vision by pioneering numerous innovative programmes and initiatives. NF aims to achieve this purpose through some of its various robust programs like NASSCOM Knowledge Network, ConnectIT and Poverty Alleviation Programme.

#### BUILDING CAPACITIES OF THE UNDERSERVED - NASSCOM KNOWLEDGE NETWORK

The NASSCOM Knowledge Network (NKN) centres provide public access to Information and Communication Technologies for educational, livelihood, social and economic development.

NKN, a dynamic network of telecenters or knowledge centers across 646+ villages in 90 districts and 13 states of India, gained further momentum in the past year. The programme now boasts of 280+ NKN centres which have provided skills training to 30,000+ and reached over 1,44,000 community members since its inception. NASSCOM Foundation continues to draw up a longterm sustainability plans for the centers to provide content and services that address the needs of the local communities.

The NKN centres are set up and managed through multi stakeholder partnerships among NGOs, CBOs, for profit organizations and NASSCOM Foundation.

• NF brings ICT infrastructure, content,



connectivity, training, and strategic inputs for the programme with support from NASSCOM member companies and beyond. NF through its other programmes and partners assist with software and hardware donations.

- Resource partner, mainly corporate, bring funds and socially relevant services for the centre.
- NGOs provide human and other resources to run the centre.

#### FACILITATING LIVELIHOOD SKILLS FOR THE UNDER-SERVED - POVERTY ALLEVIATION PROGRAMME



Poverty Alleviation programme is aimed to provide

employability and encourage microentrepreneurship to rural youth and people from under-served communities including women, people with disabilities as well as unskilled workers. NF currently facilitates this through Anizooms and CEDAT.

The animation training project, called Anizooms, was initiated to build livelihood skills for under-privileged youth. The project began as a skills building course for Muslim girls at the NASSCOM Knowledge Network in old city of Hyderabad; where Technology for the People (TFTP) was training adolescent girls and women in various animation skills since 2005. This, is in line with NASSCOM Foundation's mission to improve the lives of the under-privileged, thereby providing NF an excellent opportunity to scale up the efforts of this Hyderabad centre. NF together with Accenture came forward to support the centre with resources.

Two new Anizooms centres followed the Hyderabad centre in 2009, one in Sangli and one in Chandni-Chowk in Delhi. The centres have upgraded curriculum including extensive pre and post production training, internship with Animation firms and placement at the



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#### CASE STUDY 1: NF INITIATIVE HELPS YOUTH CLUB WIN PRESIDENT'S AWARD

Siripur is a small village in Puri district of Orissa. Some youth club members of Friends Club, Siripur wanted to develop the economic condition of the village. In this regard they wanted to set up an ICT based information center at the village. They approached NASSCOM Foundation for assistance. NF established the Gyana 'O' Soochana Kendra (GSK) in association with Forum for Integrated Development and Research (FIDR), NF's NGO partner in Orissa. The GSK started many activities at the center which included computer education for underprivileged youth, computer aided learning for school children, livelihood training for unemployed youth and health awareness training. The GSK gave training to the village youth and farmers on mushroom cultivation among the livelihood trainings it conducted.

NASSCOM Foundation provided the basic training module, and cultivation started on an experimental basis. Now with the help of GSK, NF, Nehru Yuva Kendra (NYK), and Orissa Universal Agriculture Training (OUAT), the Friends Club of Siripur has started producing mushroom seeds. The village has been selected by NYK, Govt. of India, Ministry of Youth Affairs and Sports and OUAT of Orissa as a model village.



The district administration, district agriculture department, NYK, Puri, academicians, and students of OUAT saw the impact of GSK and NF on the farmers and decided to support the development of the entire Simili Panchayat comprising Siripur, Ansara, Nuagaon, Kadalibadi, Paikarapur, Matiapada, and Paitaban. The unemployed youth of Simili Panchayat are thus becoming

independent and financially secure in earning their livelihood.

Being witness to this laudable work of Friends Club and GSK, the Nehru Yuva Kendra, Puri bestowed them with the state level Best District Youth Club Award. Their work reached the national spectrum when Ramakrushna Mohanty, President, Friends Club, Siripur and Manager, GSK, Siripur, and Sri Rashmi Ranjan Rautaraya, Member, received the National Award from the Hon'ble President of India. The Award was presented at the National Youth Festival held on January 12, 2008 at Chennai.

end of training. The students selected for these centres come from under-privileged backgrounds.

Hyderabad Centre: 45 girl students have completed the training and 25 more are undergoing training at the moment. The training has given a new lease of life to the girls from under-privileged background that now look forward to earning a livelihood from the centre itself.

Sangli Centre: Over 20 youth are going through the training program. They also receive soft skills and communication training. An advanced IT training is also provided as a part of this course to help them compete better in the job market.

Delhi Centre: The centre initiated in November 2009 has started the training with 17 students. The students are also going through spoken and communication English courses along with animation course to prepare them for the industry. The Center for Executive Development and Training (CEDAT), a 100 hour weekend program spread over six months, was initiated to train People with Disabilities (PwDs) in conversational English, IT skills and Personality Development. NF has collaborated with MBA Foundation, an NGO that has the domain expertise on working with PwDs. Four batches of around 60 students have so far been trained and placed at various companies. The 5th batch commences from March 2010.

#### TRAINING NGOS & GOVERNMENT OFFICIALS TO USE TECHNOLOGY FOR DEVELOPMENT - CONNECTIT



Inviewofthe government's N a t i o n a l

e-governance plans as well as other initiatives like NREGA, RTI and others, NASSCOM Foundation started a three year nationwide initiative called ConnectIT to provide the much needed advanced IT training support to NGOs and government officials at an advanced level.

There are demonstrated successes of ICT enabled skills development interventions, which have helped in functional scale-up organizations and enhanced the outreach and impact of their activities. Some of the well-acknowledged benefits of the use of ICTs include: increasing productivity; improving communication and collaboration; organizing critical information and facilitating technology enabled skills development training. Worldwide, experiences have shown that ICT use is relevant and useful, even in highly traditional settings.

The relevance of building IT skills among local government officials has gained importance manifold with the roll out of the government's national e-governance programme and has created a need for IT skilled government officers who can align with the vision of the government. NGOs support the government and in contributing to development. Although an estimated million NGOs are operational in India, only a few thousands use ICTs in their day- to-day operational and management activities and only a few hundreds use them in their development programmes.

The ConnectIT programme, supported by Microsoft and NASSCOM, is aimed at increasing the capabilities of NGOs and social development organizations in the use of Information and Communication Technologies (ICT) for social development initiatives.

ICT for Development - ICT helps underserved communities access information, services and opportunities that collectively build their capacities to realize their goals. NF brings together implementing agencies, industry, government bodies and people at the grassroots for integrated development through the use of ICT.

NASSCOM Foundation is a charity registered under the Indian Trusts Act, 1882 and under Section 12A of Income Tax Act. NF is the social development arm of NASSCOM (National Association of Software and Service Companies), the internationally recognized trade body of the Indian IT-BPO industry. NASSCOM and its members are committed to social development through the application of ICT and beyond. NF is passionate about the cause and takes pride in holding the unique opportunity of leading the IT-BPO Industry towards changing the social development landscape of India.

# 6<sup>th</sup> **eINDIA** 2010 India's Largest ICT Event

4 - 6 August, 2010 Hyderabad International Convention Centre Hyderabad, India



Organisers



Co-organisers



Host State Partner

Country Partner



am happy to know that Hyderabad is hosting the sixth edition of e-INDIA 2010, Indias largest ICT event. The Andhra Pradesh Government which has taken up several path breaking initiatives in ICT, e-Governance, e-Education, e-Health, e-Agriculture and related fields is glad to be the host of this prestigious event.

Andhra Pradesh has emerged as a preferred destination for knowledge-driven and high-value investments. Hyderabad, capital city of Andhra Pradesh offers immense potential for IT companies in terms of its advance business infrastructure and best IT & ITES practices, highly skilled workforce, and supportive Government policies.

On behalf of the Government of Andhra Pradesh, I welcome you all to e-India 2010 and wish the event all success.

**K Rosaiah** Chief Minister, Andhra Pradesh



In serving its citizens, Government of Andhra Pradesh has embarked on practicing e-Government and leveraging the tools of Information & Communication Technology. Hosting of eINDIA 2010 in Hyderabad symbolises the government's commitment of achieving the goal of citizen centric, clean and good governance. eINDIA witnesses participation from government, international developmental agencies and the service providers in e-Governance.

Exhibition at eINDIA 2010 will facilitate synchronisation of demand and supply in terms of adoption of right



rms of adoption of right technology and processes towards enabling e-Governance. To maintain the pace of growth and consistent progress in this sector, eINDIA would go a long way.

Komathireddy Venkat Reddy Minister for Information Technology, Communications, Youth Services and Sports, Government of Andhra Pradesh













eINDIA 2010, the sixth annual ICT forum in India aims to render active conferencing, networking and showcasing while organising six seminal tracks on egov, Digital Learning, eHealth, eAgriculture and Telecentre Forum.

As an international event, the eINDIA 2010 Conference and Exhibition aims to bring together 2000 high level representatives of the Information and Communication Technology (ICT) industry, government, civil society, academia and private sector from all across the globe to share the best practices and digital opportunities for development.

The presence at the Conference, besides other benefits, offers a perfect platform for establishing and fostering high level networking contacts with leading representatives of the world's ICT sector in government, education, health, agriculture, rural development and urban governance.

#### **Conference Objectives**

 $\bigcirc$  Provide a collaborative forum to participants to share knowledge and ideas enabling them to develop cross-sectoral contacts and partnerships.

Establish a comprehensive picture on the impact of ICT available from national and international experience sharing.

⇒ Give a reference framework for describing impact, looking at approaches and methods currently used in the ICT sector and their suitability.

 $\bigcirc$  Synthesise the main results of the experience sharing and progress made in recent years to provide a baseline for discussion on the findings with policy makers, professionals and community of practices.

Highlight barriers of ICT integration in India and for other countries as well.

⇒ Give policy recommendations on the basis of the evidence available in order to create favourable framework conditions for effective ICT integration as well as future fields of actions at national and international level.

 $\bigcirc$  Identify gaps in current research engagements.

The application of ICT has a profound impact on the efficiency, responsiveness and accountability of the government, thereby, on the quality of life and productivity of citizens and businesses. egov 2010 will provide a platform for policymakers, industry leaders, academicians and e-Governance architects to discuss and share the achievements, challenges and lessons learnt in implementing e-Governance in India.

**digitalLEARNING** With the aim of promoting the use of ICT in education, digital LEARNING 2010 track focuses on the current trends, perspectives, research, discussions and initiatives in the field. digital LEARNING 2010 invites all of you to be a part of this 'Larger than Life' event, to participate, discuss, be heard and make a difference to the education sector.

**CHEALTH** Modern ICTs are revolutionising healthcare systems, by transforming health administration, service delivery and care management. eHEALTH India 2010 – the most definitive Indian event on healthcare ICTs, technologies and applications will bring together the entire community of health IT for active conferencing and networking.

**•AGRICULTURE** ICTs can enable the biggest entrepreneur community i.e., farmers to deliver their best and consequently build a stronger nation and economy. eAgriculture 2010 will share ideas and find ways through which current agricultural practices can be made more efficient with the help of ICT tools.

**Telecentre** Of the numerous efforts at making ICT a tool for socioeconomic development telecentres have been playing a dominant role. This forum will act as a platform to share experiences in order to come up with tangible solutions to the issues raised.

The conference would educate policy makers, municipal officials and citizens about how IT can make the functioning of municipalities smooth and speedy. The event provides a unique platform to understand and debate strategies to arm municipalities with IT, challenges that might arise and the advantages that people can get.

eINDIA has been an excellent platform for bringing together stakeholders to exchange ideas and to get to know the possibilities of new innovations that have come into the field of technology. eINDIA has made the entire process very exciting, and I must compliment that every time I have attended the event. I discovered newer and better innovations. It is an insightful and learning experience and will be a good eye opener for those who are not aware of these ICT trends.

eINDIA has been instrumental in bringing together potential partners, not just in the ICT in education field but also those in the health, governance and telecentre domains. It has helped support the fact that technology can extend developmental opportunities and facilitate the teaching process further.

#### **D** Purandeswari

Minister of State, Higher Education, Ministry of Human Resource Development, Government of India



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### Conceptualising the future developmental agenda

eINDIA 2010, India's Largest ICT event, is going to be organised from 4th to 6th of August, 2010 at Hyderabad International Convention Centre, Hyderabad, India, by the Centre for Science, Development and Media Studies (CSDMS) and Elets Technomedia Pvt Ltd. The event has the Ministry of Communications and Information Technology as its co-organiser along with Directorate General of Employment & Training (DGET), Ministry of Labour & Employment, Government of India and National eGovernance Plan. The host state partner for the event is the IT & Communication Department, Government of Andhra Pradesh, while the country partner for the event is Sri Lanka. The event is said to be a unique platform for disseminating and sharing of knowledge across verticals in the domain of ICT for Development and facilitates multi-stakeholder partnerships, bringing together the central and state governments, industry, academia and civil society organisations of different countries, including the host country - India.



Left to Right: Dr Ravi Gupta, Prof V N Rajasekharan Pillai, S Reghunathan, R Chandrashekhar, R S Sharma, Dr R Sreedhar, Savitur Prasad and Dr MP Narayanan at the Curtain Raiser of eINDIA 2010

The launch and the curtain raiser of eINDIA 2010 took place in New Delhi at The Claridges, on April, 9, 2010. The event was formally launched by eminent personalities which was followed by a Power Panel discussion, titled 'Digital India in the Making - Opportunities and Challenges' by the dignitaries.

The keynote address was delivered by R. Chandrashekhar, Secretary, Department Information Technology, Ministry of of Communications & Information Technology, Government of India. He spoke about many issues including scaling up of many Indian sectors, about transformations taking place in field of web technology and issues related to Web2.0. He informed the participants that eINDIA has grown in its magnitude and scale since its inception and congratulated the organisers for the same. He spoke about the need for convergence of different domains of governance, health and education in the second phase of e-Governance, going on currently.

The other panelists at the session included Dr R S Sharma, Director General, Unique Identification Authority of India (UIDAI); Savitur Prasad, Secretary IT, Government of NCT of Delhi; Dr R Sreedhar, Director, Commonwealth of Learning; S Reghunathan, Former Member, National Knowledge Commission; and Prof V N Rajasekharan Pillai, Vice Chancellor, Indira Gandhi National Open University. eINDIA 2010 has been conceptualised with the composition of seminal conferences on the emerging application domains of ICT for Development in e-Governance, ICT in Education, ICT enabled

Health services, ICT in Agriculture, ICT in Rural development and ICT in Urban Governance. There will be six conferences on eGov, digital LEARNING, eHealth, eAgriculture, Indian Telecentre Forum and Municipal IT in the event.

#### eINDIA 2009 AWARD WINNERS



Dr Ahmed Mouhmed Tobal Education Project, Ministry of State for Administrative Development, Egypt



Senior Manager-IT & Systems

Aravind Eye Care System

Chairman, GDCO Sudan

Ahmed Fisa

Babu Ahmed CEO, Aarogyasri Healthcare Trust



Amitabh Tripathi Deputy Controller General of Accounts, New Delhi



Balaji Utla CEO, HMRI



Capt Dilip Mahajan Deputy Commissioner Ahmedabad Municipal Corporation



Prof K R Srivathsan Former Director, Kissan Kerala (IITM-K)



Mukesh Hajela CEO & Vice Chairman NICT-INDORE



Niranjan Meegammana Managing Director, e-Fusion, Sri Lanka



Dr R C Patnaik Chief Medical Officer Municipal Corporation of Delhi



Dipankar Sengupta Technical Director, Office of Controller General of Accounts, National Informatics Centre



Laxminarayan Group General Manager, SCZ, IRCTC



Dr Neeta Shah Director, Gujarat Informatics Ltd.



Dr Rathan Kelkar Director IT, Kerala IT Mission Government of Kerala



Dr S Vijayakumar Spl Sectretary, Department of Health & Family Welfare, Government of Tamil Nadu



Ram Hospital, New Delhi

Manish Bharadwaj Director, Census Operation Gujarat



**Neeta Verma** HOD, Data Centre & Web Services Division, National Informatics Centre, Delhi



R K Kapoor Dean of ICT, Scindia School



**S K Panda** SIO & Senior Technical Director, National Informatics Centre, Orissa



## Recognising excellence in ICT

eINDIA Awards are the premier accolades given to innovative endeavours made in assimilating technology in developmental concerns.

Nominations for eINDIA 2010 awards are invited for the following six categories from individual participants, government organisations, non-governmental organisations (NGOs), private institutions and enterprise who have transformed social development opportunities into a sustainable social enterprises through innovative use of ICTs.

#### Digital Learning

ICT Enabled School of the Year ICT Enabled University/Higher Education Institute of the Year ICT Enabled Business School of the Year ICT Enabled Engineering College of the Year Skill Development Initiative of the Year Open and Distance Learning Initiative of the Year

#### 🗢 eGov

Government to Citizens (G2C) Initiative of the Year Government to Business (G2B) Initiative of the Year Government to Government (G2G) Initiative of the Year mGovernance Initiative of the Year ICT Enabled PSU of the Year ICT in Financial Inclusion Initiative of the year

#### eHealth

ICT Enabled Hospital of the Year Government Policy Initiative of the Year Civil Society/ Development Agency Initiative of the Year ICT Enabled Diagnostic Service Provider of the Year Health Insurance Initiative of the Year

#### eAgriculture

ICT Enabled Agriculture Initiative of the Year

#### Municipal IT

ICT Enabled Municipal Initiative of the Year

#### Telecentre

Innovative Grassroots Telecentre Initiave of the Year

Nominations can be made online at www.eINDIA.net.in/awards/2010

For clarifications, contact: **Sheena Joseph**, email: awards@eindia.net.in; Mob +91 - 9971841718

Dr Karanvir Singh Consultant Surgeon, Sir Ganaa

#### Key Speakers at eINDIA 2010



D Purandeswari Minister of State Higher Education Ministry of Human Resource Development (HRD) Government of India

Subhash C Khuntia Joint Secretary

Ministry of HRD

Government of India





Ratna Prabha Principal Secretary-IT Government of Andhra Pradesh



N Ravi Shanker Joint Secretary, DIT, Ministry of Communications and Information Technology, Government of India



C D Arha Chief Information Commissioner Andhra Pradesh



Sharda Prasad Joint Secretary & Director General Employment & Training, Ministry of Labour & Employment, Government of India



Michael Riggs Knowledge and Information Management Officer FAO, Rome



Prof V S Ramamurthy Director National Institute of Advanced Studies Indian Institute of Science



Dr T P Trivedi Project Director Directorate of Information & Publications of Agriculture, Indian Council of Agricultural Research





Ashis Sanyal Senior Director DIT Government of India









J Satyanarayana Principal Secretary, Health, Medical and Family Welfare Government of Andhra Pradesh

R Chandrashekhar

Department of IT (DIT)

Shankar Aggarwal

Government of India

Dr Sameer Sharma

Greater Hyderabad Municipal

Commissioner

Corporation

Ministry of Communications & IT Government of India

Joint Secretary DIT, Ministry of Communication & IT

Secretary



Amod Kumar Special Secretary, Revenue Government of Uttar Pradesh







Prof K R Srivathsan

(IGNOU)

Dr Shayama Chona

**Dr Ashok Kumar** DDG and Director Central Bureau of Health Intelligence, Government of India

Pro Vice Chancellor Indira Gandhi National Open University









R S Sharma Director General Unique Identification Authority of India



Sudhir Krishna Additional Secretary Ministry of Panchayati Raj Government of India



Prof V N Rajasekharan Pillai Vice Chancellor Indira Gandhi National Open University (IGNOU)



**Dr Rajeev Sharma** Director General Centre for Good Governance



Ministry of Power Government of India



Dr Latha Pillai Pro Vice Chancellor IGNOU

Shakila Shamsu

Joint Advisor (Education)

Planning Commission



Basheerhamad Shadrach Executive Director



telecentre.org Foundation





T Krishna Prasad IGP & Director Police, Communications Government of Andhra Pradesh





# **e-INDIA** 2010 India's Largest ICT Event

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# Change in Mindset for a Better Society

#### www.sevamandir.org



#### NEELIMA KHETAN CEO, SEVA MANDIR, UDAIPUR, RAJASTHAN

## Please tell us about the philosophy at Seva Mandir.

Self reliance is our core philosophy. We, at Seva Mandir look at the developmental aspects of the society where citizens can actively participate and take up collective responsibility in the process. The idea is to encourage people to deal with problems themselves and not to depend on state. It is in tune with Gandhiji's notion of Swaraj which says that it is important for the community to wake up, become stronger and empowered for to take up the responsibility.

#### In the context of education, can you reflect on your methodologies to cater to people at the grass-root level?

We plan and work closely with the community. We also intend to inculcate responsibilities among the community population. Issues like agriculture, education and teachers training needs to be resolved in that context and for that a two way communication with the people is essential that helps to identify problems and the solutions to it as well.

#### Could you please share with us about the funding aspects of Seva Mandir that help you in implementing the programmes.

Seva Mandir is completely aided by private bodies. We take care of several areas including livelihoods and education, where the total contribution of the government is less than 10% of our total budget.

I guess, the government assumes that role of NGOs is restricted to implementation. But I feel an NGO can work in a much wider spectrum in a democracy.

For a widened democracy like India, we are trying to change the social base, values and social norms. Only putting up of laws will not change it, we need to reach out to the families. The mindset of the people needs to be changed. If not the government, we need to work to change the mindset of the society as a whole.

The idea is to encourage people to deal with problems themselves and not to depend on state.

#### Any other initiatives you would like to highlight or any other collaborative partnerships that Seva Mandir is holding presently?

We are working in collaboration with Private sector and Foundations set up by corporates. Some of them are ING Vysya Bank, Monsoon Accessorize (a UK based fashion brand), Target (a US based Chain of stores) etc. Now the terms and conditions are a little different in these collaborations. Let me explain it in my own words. For instance, if the partners want development only in water harvesting, they will not consider anything else. But fortunately for us, our donors have been very cooperative.

#### Please give us a brief description of the teacher training system Seva Mandir provides.

We research a lot on teachers training and capacity building over a long period of time, along with the pedagogy which is equally important. We train our teachers to take decisions according to their observations. As far as monitoring and evaluation is concerned, we wanted to monitor and evaluate performance of teachers through cameras to evaluate his/ her effort and decency and carefulness towards the children. Young adults who have passed the 8th standard are required go through the first training which is for 15 days, after completing which they can go back to school. This certificate course is for two to three years with tutorials, classes and on-job training.

#### What are the special efforts your organisation to bring in children to schools, especially in Rajasthan where girl students ratio is far behind the normal standards, and do away with gender disparity?

We run several programmes women through the women's for empowerment projects. We also put in efforts to sensitise the community population including, men, women, girls and boys. Within that overall efforts, I don't think there is a deep resistance that they don't want to send the girls, or there is a special preference for boys over girls. When they have the confidence that it is a safe place and there are facilities enough, they do send girls to school.\\

# Cloud to Support New Generation of Academicians and Learners

#### www.thotmatrix.com



## VISHAL B SHAH

CEO, THOTMATRIX SOLUTIONS

#### What are the strategies that Thotmatrix has adopted to provide end to end technological solutions to the education sector?

We provide cloud-based solutions, strategic consulting and technology management services to help institutions visibly improve performance. By combining people, processes and technology, we work with colleges and universities to help them advance their IT infrastructure to support new generations of academicians and learners. Our solutions cover a wide spectrum of an institution's technology needs including online admissions, virtual placements, alumni network and a series of customised applications ranging from student records management to reporting grades & transcripts.

With our Admissions Cloud suite, institutions can manage all their applications in one, powerful easy-to-use system. They can nurture their applicant relationships and realise true efficiencies throughout their admissions process. Our greatest differentiator is the Institutional Portal that allows admissions officers to electronically search & sort applications, schedule interviews and update status.

Through Alumni Cloud, universities can manage their alumni relations efficiently; provide an online registration and subscription renewal portal; broadcast newsletters, periodicals and donation requests; provide electronic job posting facilities; create a virtual platform for current students to interact with past alums.

Our virtual recruitment platform can help universities bolster their placement rates by virtually connecting prospective employers with graduates that best match their needs – without the associated overheads.

# What are the corporate and university partnerships that Thotmatrix has entered into?

We are currently working with some Business Schools and Art, Science and Commerce colleges in India. We would also like to collaborate with government educational institutes that conduct centralised admission processes. At this point we are in talk with 2-3 different institutes for possible collaborations.

#### What makes your solutions unique?

Our greatest USP is that we provide cloud based solutions. This implies that for the given institute, there is no requirement for any software or hardware, or even maintenance expenses. Traditional service providers give solutions that have a lot of maintenance costs including technical managers, support specialists etc. We taken everything off from there. All the institution needs to have is a good internet connection.

We deploy services on the cloud which is managed by our server partners, which is the number one cloud computing provider of the world. Users will have no problem while working on these servers.

Who we can create any application

tailored to meet the institution's specific needs. This includes integrated systems for academic services and student administration that can help the university streamline the management of information through centralised data repositories.

The greatest advantage of using our cloud is worry-free computing where applications are available on-demand.

#### How does Thotmatrix ensure that the clients are well trained in the usage of their applications and solutions?

Thotmatrix provides introductory training sessions and 24/7 access to our comprehensive online knowledge center to all our clients absolutely free. In addition to our free introductory training, our experts also come on-site to provide detailed, hands-on training to the team to help institutions maximise the returns on its investment.

We also offer a premium support plan to our clients with 24/7 call center and email support combined with a dedicated account manager who will be available to resolve any technical difficulties that may be experienced.

#### What is your opinion about platforms such as digital LEARNING magazine which work towards promoting the cause of ICTs in education?

ICT in education solution providers need a forum where stakeholders can be engaged in discussing issues and challenges. The focus that digitallearning has on ICTs is absolutely essential especially for companies like us, as it helps us to come up with solutions that are better geared to suit the user community requirements. It will also help us get in touch with institutions that are looking for such solutions. DigitalLEARNING is a good platform to engage with the government sector and the education sector towards this end. \\

# Interactive Learning for Reaching the Masses

www.mexuseducation.com



SAURABH SAXENA DIRECTOR, MEXUS EDUCATION

## To begin with, can you expand on Axiom's philosophy and vision?

Axiom Education, a global education venture by the Bilakhia group seeks to transform education into being fun-filled, innovative and student friendly. The vision is to expand the horizons of learning by introducing innovative methods and sources that are not confined to classroom education. By unifying education and entertainment, Axiom is set to deliver highest quality of educational content through platforms which make anytime, anywhere learning a reality.

## Kindly expand upon contribution of ICT in field education.

The use of technology as a medium for imparting education has not been a norm in our education system till date. Axiom seeks to promote learning in the most innovative and enjoyable manner.

Axiom has been constantly evolving

interactive learning instruments. The lessons are imparted through graphic novels, toys games, puzzles, mindmaps, motion films and interactive online tools. All this is delivered through various technology based platforms that allow for step by step assessment and feedback for continuous improvement.

With the belief that, "Every kid and all humans love to learn when not forced" Axiom has introduced its new age formula –i.e. use of technology to make learning system more interactive and engaging. Lessons that run into scores of pages are substituted by comics and toys. We trust this will hone the analytical skills of the students and prepare them to meet the industry needs with our application based learning tools.

# What kind of research does Axiom undertake to come out with the various products?

The motive behind designing various learning tools is to simplify learning in a creative way. But it does not stop just there. It graduates to the next level of letting the students analyse why and how as well as cause and effects of various happenings. Real life examples and explanations are offered so that the students can relate to the concepts better. This makes learning more interesting and competitive. The Iken books and other learning tools comprises of various direct and indirect teaching methods.

## What is the outreach of Axiom in India and abroad?

The innovative tools were an instant hit amongst the students who regarded the same as a much needed break to their tedious learning process. Even parents and teachers have started accepting these innovative models. Axiom is serving more than 4 lakh students in 1200 schools in 20 cities at present and aims to pioneer many more innovations by 2. We are enjoying an overwhelming response in states like Gujarat, Maharashtra and Rajasthan and are working towards recreating the same in other cities too.

# What are the edutainment products that Axiom plans to use with students?

The highlight of Axiom's learning tools are the innovative products and texts books. Iken books' are interactive comic text books based on the NCERT curriculum that bring scientific concepts alive through colorful and entertaining comics.

Again, the iken library had been conceived keeping in mind the state of a child's mind at different ages. Students in middle and secondary school are the most vulnerable to distractions and concentration lapses.

Besides this, lken's online creation at www.iken.in include comic creator that enable students to create their own comics and web meeting which serves as a forum for discussions with other students and academicians.

The aspect which sets apart Axiom's creation is that, it not only makes one learn with a whole lot of involvement but also makes a student think about what is being learnt.

## Can you tell us what collaborative partnerships are you holding?

Iken Scientifica is Axiom's nation wide science and technology competition that is conducted in association with Ministry of Science and Technology and the National Geographic Channel.

There are other initiatives like 'Making Science Make Sense', a program done in association with Bayer India. This program is a great way to expose students to practical applications of different concepts they learn in the schools. \\

#### digitalLEARNING 'Higher Education Summit', April 9, 2010, New Delhi

# Call for Leveraging Potentials

www.elNDIA.net.in/2010/digitallearning/higher\_education\_summit

Higher education in India is currently going through a transitional phase while coming across a critical era of development and turmoil. Witnessing and getting into the process of upholding the glory of the developmental phases, digitalLEARNING magazine organised the Higher Education Summit with the aim of stimulating debate and shaping strategies to deal with the rising challenges of the inclusion of ICT in the higher education sector on 9th of April. 2010. The Summit whirled debates on the key developmental agenda that will revolutionise the application of ICT in learning and administrative facilities for higher education institutes across India.

Taking the cue from the requirements and demands of higher education in the country, the challenge is to 'gett it right,' into delivering rightly the core business of teaching and learning, research, and contribution to the industry, community and above all the society.

But as the world is now a global village and India is standing at the threshold of that increasing and grasping stage of globalisation, it can be anticipated that the higher education system shall be operating in an increasingly challenging, competitive and complex world.

Competition is everywhere in today's world and higher education is one of the rapidly evolving sectors in the field. Therefore, the competition has become imperative. Further to that, aim of the summit has been tagged with the goal to enable the CIOs of the higher education institutions to share the best practices of supporting the academic mission, meeting the increasing demands of ICT in their organisations.

The objective of the summit is to bring together the stakeholders of the higher education sector and the technology providers on the same platform; to stir debates on the rapid technological changes and to bring forth the assumption that the most creative, innovative and challenging in the leadership will emerge as the winner in the difficult climate.



Left to Right: Sushma Berlia, M P Narayanan, Prof V N Rajasekharan Pillai and Prof Deepak Pental inaugurating digital LEARNING Higher Education Summit 2010

## POINTING TOWARDS THE NECESSITY

The summit had stimulated discussion on some of the key topics including using technology for implementation of examination and assessment in an unified way; teacher training and refresher courses in technology for updating teachers; creating a technology map for a higher education institution; future priorities for higher education IT development: the role of technology in supporting off-campus education; enhancing the online admissions process; managing multi-site data centres - challenges and benefits; and examining the introduction of the virtualised IT environment and addressing the increasingly complex issue of information management.

The summit was a prolific platform of sessions with the factors that cover 360° of the issues in the sector, following to a successful celebration of Welcome, Inaugral and the Keynote address of the day further to witness delibrations on the themes of Leveraging Technology for Providing Quality in Higher Education: Vision & Strategies, Distance Education: Democratising the Dissemination of Quality Education, Technology Enabled Campus: Creating a Roadmap to Match Global Classrooms, On-line Examinations as a part of IT Supported Examination Process Chain, Challenges and Opportunities and Ushering in Virtual Learning Environment in Higher Education.

#### THE SESSION DETAILS

The summit was inaugurated with the Welcome Address by Dr M P Naravanan. President. Centre for Science, Development and Media Studies and a Theme Address by Dr Ravi Gupta, Editor-in-Chief, digital LEARNING Magazine on how the magazine aims of promoting and aiding the use of ICT in education, with a clear focus on the current trends, perspectives, researches, discussions and initiatives of various countries of the world in the field of ICT and education. Thus, over the years, this monthly education magazine has built up a vast body of knowledge that can help organisations and government agencies regarding e-learning initiatives or other technology mediated learning. The initiative is based on the understanding that technology can play a pivotal role in improving access and quality of education throughout the world.



Prof Deepak Pental delivering keynote address during the summit

The Keynote Address on the summit was delivered by Prof VN Rajashekhaan Pillai, Vice Chancellor, Indira Gandhi National Open University (IGNOU), Prof Deepak Pental, Vice Chancellor, Delhi University and Sushma Berlia, President, Apeejay Stya Group.

While delivering his speech, Prof Pillai stated it very clearly, "The challenge in higher education is accessibility to a large number of learners. But we also have to focus on Vocational Education that will give us skilled professionals. But in all the cases, enhancing GER (Gross Enrollment Ratio) is not possible without the capacity building of the teachers for which ICT plays a crucial role. We need smart classrooms, employable graduates, online capabilities of day to day functionalities of educational institutes, and of course quality research fellows who can take the knowledge network forward."

"I appreciate the efforts of digital LEARNING magazine. That's because it is talking about the advancement of technology into education," says Prof Pental at DU. According to him further, "The University is now looking for more and more accessibility at distant parts of the country. We are looking forward to technically advanced courses like distance learning and open learning options. We already have more than three lakhs of students in open learning. We also started Institute of Life Long Learning at the University. Although, at DU, Post Graduation and Research take priorities. Our challenge is now to excel at every stage and for that we need the support of ICT."

Sushma Berlia from Apeejay stated, "India is all on the growth trajectory. But to fill in the existing gaps we need skilled manpower and more access to higher education. We require some changes in the government policies, collaborations, and above all the overall inclusion of ICT in education."

Further to that there was a Corporate Presentation by Swati Samaddar, Regional Manager, North & East-Education Solutions, Adobe India.

#### LEVERAGING TECHNOLOGY IN HIGHER EDUCATION: VISION AND STRATEGIES

Technology plays an inseparable and unavoidable impact on education and especially in higher education currently. Although the use of technology has revolutionised the sharing of information and knowledge in numerous fields, triggering the change in place around the world at an astounding rate, but it seems in many cases educational institutions are struggling to keep it up with the development around. Experts say that some of the reasons attributed to the hindrance are lack of resources and administrative focus, and improper evaluation programs. Therefore, the session mostly focused on classroom technologies that can have a positive impact in educational institutions across the nation. It also tried to highlight the role of the government in this direction and underscored the relevance of e-learning tools to increase access and provide quality education.

Moderator in this session was Raien Varada, Resource Person, United Nation Solution Exchange (UNSE) and the eminent panelists were Dr B K Murthy, Director, Department of Information Technology, Ministry of Communications & Information Technology, Government of India Prof S V S Chaudhary, Vice-Chairperson, National Council for Teacher Education (NCTE), Prof A K Bakshi, Director, Institute of Life Long Learning, University of Delhi, Prof Z H Khan, Director, Centre for Information Technology, Jamia Millia Islamia and Dr S N Nandi, Associate, Quality Council of India.

Speaking in the context of higher education Dr Murthy commented, "We need to bridge the gap between content and ICT. To create a larger National Knowledge Network, we are in the process of leveraging a high bandwidth connections to all the institutions in education, governance, telemedicine to be interconnected and intra-connected as well."

While Prof Chaudhary said, "The accessibility of ICT in education in India



Left to Right: Dr Sunita Raju, Dr Sharat Kumar, A M Thimmiya, Dr C K Ghosh, Dr Seema Parihar and Dr Neeta Kapai at the Summit's panel discussion

is still very poor. Besides, there is a dire need of a proper teachers' training in technology applications, otherwise we won't be able to get the best of the opportunities."

According to Dr Nandi, Quality is the buzzword to meet the challenges in education and in that case quality analysis in the institutes and teachinglearning process is the must. In this point in time India should focus more into research and development to match up to the quality if global standards.

There were also a Corporate Presentation by Madan Padaki, Co-Founder and CEO, Merit Trac Services and thereafter by Raunak Singh Ahluwalia, Director, University18.

#### DISTANCE EDUCATION: DEMOCRATISING THE DISSEMINATION OF QUALITY EDUCATION

The session was the need of the hour. The nation requires the access and spread of higher education as the opportunities of higher education is numerous in a country like India. Here comes the importance of distance education. In distance education, the main goal is to overcome barriers of place and time of the learners. They might live in isolated, rural areas and have no access to education or may already have access to a college, but that college might not offer the course of study needed by that learner. Distance learning meets all the gaps. It allows education to reach those who are not able to physically attend courses on a campus or increasingly facilities learners to participate at a time that is most suitable for their schedule.

But again, technology plays an important role here, while one is discussing about the reach and accessibility of education. The primary objective is to overcome the distance between the teacher and the learner. Through the application of technology, the teacher can prepare a particular lesson and send it to the learner, and the learner then can interact with the lesson and send feedback with questions, assignments, tests to the teacher.

Moderated by A.M. Thimmiya, Senior Vice President - Distributed Learning, Manipal Education, the session helps in establishing a detailed agenda of the future of distance learning in India. The panelists included Dr C K Ghosh, Director, Student Service Centre, Indira Gandhi National Open University (IGNOU), Dr



Left to Right: Dr PK Chaturvedi, Brig (Dr) RS Grewal, Seema Parihar, Dr Rajiv Shorey & Prof Sanjay Jasola

Sharat Kumar, Former Director, Institute of Management Technology (IMT)

Dr Sunita Raju, Senior Chairperson and Professor, Indian Institute of Foreign Trade (IIFT), Dr Seema M Parihar, Deputy Dean, Central Placement Cell, University of Delhi and Dr Neeta Kapai, Deputy Director, Campus Placement Cell, Indira Gandhi National Open University (IGNOU).

"Leveraging the quality of teachers in our current education system is a challenge. For that we need to change our mindset and Industry participation is a must in the process," said Thimmiya at the summit.

According to Dr Raju at IIFT, "We conduct courses both through classroom lectures and distance learning, a blended

learning approach. We have tied up with NIIT Ltd and Hughes Communications for the purpose. We ensure that the distance classes get the same value added options the classrooms get. We also arrange to receive the feedbacks from the students and try evaluate it."

#### TECHNOLOGY ENABLED CAMPUS: CREATING A ROADMAP TO MATCH GLOBAL CLASSROOMS

The session focuses on the emerging concept of campus technologies including use of Internet as well as the latest hardware and gadgets' applications to support student research and collaboration, to improve communication between instructors and students, for



Left to Right: Prof Sudhi Ranjan Dey, Madan Padaki, Dr RP Singh, Sr Sarabjit Singh and R. Dhirendra



Simmi Kher, Raunak Singh and Major Gen SB Akali

a better. fast and improved knowledge delivery.

The latest technologies imparted in the classrooms are learned to have profound effects in universities across the globe and India is witnessing the changes too. Not too far ago, global instructors had started to abandon traditional approaches of the teaching learning process, which said to have transferring knowledge from faculty to students in a much constrained and subjective manner. But for the cuttingedge strategies, which allow students to construct their own learning mooting them for their innovative ideas and bringing out solutions of critical situations, technology becomes inevitable in the process. And this change in the instructional strategy has also brought about a change in the tools which are used for the new method of teaching.

The session was meant for the educators that the process must be prepared to both understand and use of classroom technologies and application to the fullest. Universities, if aspiring to be in the global standard, to sustain in future in the competition, need to utilise campus infrastructure which should be designed to integrate a wide variety of technologies into the classroom, thereby making them entirely wireless and promoting various online learning tools.

The sessions was moderated by Seema Parihar and participated by Dr Rajeev Shorey, President, NIIT University, Brig (Dr) R S Grewal, Vice Chancellor, Chitkara University, Prof Sanjay Jasola, Dean, School of Information and Communication Technology, Gautam Buddha University and Dr P K Chaturvedi, Dean, Faculty of Engineering, Skyline Institute of Engineering and Technology.

"For us at NIIT University, technology is the focal point as we are concentrating on synchronous learning and technology enabled green campus. Students from their first year are equipped with netbooks and the campus is wi-fi enabled everywhere," said Dr Shorey from NIIT.

#### ONLINE EXAMINATIONS AS A PART OF IT SUPPORTED EXAMINATION PROCESS CHAIN, CHALLENGES AND OPPORTUNITIES

In teaching learning process, by any means, examinations are a crucial part even in university's administration procedures. In that, ICT support in examinations and administration processes is fast catching up among the institutions today. It is of late that some higher education institutions have initiated the process of admission from paperbased examinations into a computerbased.

The reason behind is that, on-line and on-screen exams are supposed to reduce costs, and improve quality and speed of the correction process. However, integrating computer-based tests and assessments in the examination process chain brings about a lot of problems and challenges for both faculty and administrators. But the testing procedure ensures the hackles in a much smoother way.

Therefore, in an effort to bring about the best of on-line examinations, the session focused on the organisational and technological challenges that have to be met and thus brought out some of the experiences of the lessons learnt from the recent events.

Dr R P Singh, Vice Chancellor, Sharda University was the moderator of the session while the panelists were Madan Padaki, Co-Founder and CEO, MeritTrac Services, Prof Sudhi Ranjan Dey, Executive Director& Dean and Chairman, Academic Senate of IBMR Business School, Dr Sarabjit Singh, Principal, Apeejay College of Engineering and R Dhirendra, CEO, Eduquity.

"In our institute we are now in a phase of transforming all exams into on-line mode. I am sure that most of the higher education institutes find it the best to do so. Therefore, my suggestion is that, students should get exposure to on-line admission and examination process from the pre-secondary level itself," observed Prof Dey at IBMR Business School.

#### USHERING IN VIRTUAL LEARNING ENVIRONMENT IN HIGHER EDUCATION

Like the Distance Learning, the demand and presence of Virtual Learning Environments (VLEs) is increasing in higher education institutions world over. There are case studies claiming that VLEs are more effective as a learning method than traditional classroom lecturing with the intervention of Information and Communication Technology (ICT) without the constraints of time and distance. Once students and lecturers have access to the web. VLEs would minimise the challenges in delivering lectures and the associated feedbacks from students inspite of their physical absence in lecture halls.

The session aimed to address the suitability of a VLE for higher education in the country by comparing learning with a VLE and learning in a traditional lecture methods.

Moderated by Simmi Kher, Country Coordinator, Tony Blair Faith Foundation, the panel had Major Gen S B Akali, Director, Global Institute of Healthcare Management and Raunak Singh Ahluwalia, Director, University18.

"We cannot be left untouched by the effects of ICT in education when we are talking global. ICT helps in delivering at the best possible way. ROI (Return On Investment) can also be measured with the help of it. Days are coming when ICT will be mobile based and things will be delivered in moments," voiced Dr Akali at Global Institute of Healthcare Management. \\

## MY JOURNEY

# The Journey Begins... For The Love of Learning



#### Prof V N Rajasekharan Pillai

**Current Engagement:**Vice Chancellor Indira Gandhi National Open University, New Delhi and Chairman of the Distance Education Council

Date of Birth: 20 October 1949

#### **Things He Likes**

Book: Kalam By M T Vasudevan Nayar, gyanpeeth award winner Music: Karnatic Vocal, specially Chempayi Vaidyanath Bhagwatam Food: Home cooked Holiday Destination: Lausanne, Switzerland PastimeTime: Listening to music

PastimeTime: Listening to music

#### Awards and Achievements

- Presidential Gold Medal of the Indian Science Congress: 2008
- Triennial National M. V. Pylee Award for the Top Academician of India: 2007
- R.R. Varma Foundation Best Teacher Award: 2006
- Indian Chemical Society Award For life long research achievements in the area of chemical sciences: 2005
- Research Society of India Lecture Award: 1996

India had recently got its independence, and schools in villages still lacked infrastructure. Students sat on the floor and classes were often held in open air. But that did not deter those who wanted to learn. Four-year-old V.N. Rajasekharan Pillai, was one such student. He was thrilled to go to school carrying his small bag with fine sand and a palm leaf, walking through the lush green fields of Chengannur, Kerala. On reaching school, he would sit down on the floor in front of his teacher, spread out the fine sand on the ground and trace out letters of the Malayalam alphabet with his little fingers. The day he perfected writing the first alphabet, the teacher engraved it on the palm leaf with an iron rod. On his way back home, the boy plucked some leaves from the field and crushed them over the palm leaf so that the letter on the leaf would shine through clearly. It was beautiful.

That boy grew up to be an extraordinary student and today is the Vice Chancellor of Indira Gandhi National Open University (IGNOU), New Delhi and the Chairman of the Distance Education Council (DEC). The love for learning and innovation remained Dr Pillai's constant companion throughout his student life and academic career.

Brought up in a traditional agricultural family, Pillai was the youngest among six siblings and had lost his mother at an early age. "My father decided to send me to a college 10 kms away from the village," he reminisces. When he completed his Masters from Kerala University, he was offered a job of junior lecturer by the government. It was a matter of great honour as only ten people were chosen from the state, but Pillai had other plans.

#### **RESEARCH AND INNOVATION**

"I had heard about research and the idea excited me. I settled for full time research with a scholarship of INR 250," he recalls. "However, at that time I did not know that PhD was only a preparation for doing research. I had imagined that I would be engaged in some scientific discovery or invention," he adds with a smile.

Perhaps it was his desire to invent that finally led him to a unique gram-scale preparation of biologically important peptides, for which he holds an international patent. This preparation is currently being used by a Swiss company. "Innovation cannot be prescribed, and discoveries do not happen overnight. It needs diligence, focus and commitment," he declares. "In the first few years of my career I was in a government college, and was used to seeing lab assistants assisting researchers even to the extent of lighting their burners. When I went to Germany for post doctoral research, I was surprised-- there were no such people! A 78-year-old nobel laureate was also working in this lab and he used to

enter the lab with a shopping cart full of chemicals that he would pick up himself from the shopping mart," he adds.

That memory perhaps stayed with him, and to this day his working style is very hands-on. As a teacher and research guide he made sure that his students accompanied him for seminars and expositions and encouraged them to take up challenges. In the various administrative roles he has held as Vice Chancellor of Universities, as Chairman and Vice Chairman of the University Grants Commission, as the Director of the National Assessment and Accreditation Council, or as Founder Director of School of Chemical Sciences, he has ensured that he takes inputs not only from institution heads but also from teachers and students to initiate changes.

In early 90s, when Pillai became the Vice Chancellor of Mahatma Gandhi University, Kottayam, Kerala, he was one of the youngest VCs. "I had never thought that I would become a VC. I was happy doing research. However, when I became a VC I realised that it is only a good teacher and a good researcher who can become a good administrator in a university."

It was not just the academic world that benefited from Pillai's thirst for knowledge. Some of it rubbed off on his family as well. Even his wife, Dr P. Geetha, who is currently professor of English and Director, Centre For Women's Studies, Lal Bahadur Shastri Sanskrit University, New Delhi, was from an academic background. It was no wonder that their children- son P. Balanarayan and daughter Dr P. Gayathri were attracted towards academics. While Balanarayan is a CSIR Senior Research Fellow at Pune University, Gayathri is teaching Biology at Indian Institute of Sciences, Bangalore.

#### **OPENING UP EDUCATION**

When Pillai joined IGNOU in 2006, he had already initiated technology enabled learning in other places. However, it was here that he truly explored ways to make education more inclusive through technology. Under Pillai's leadership, IGNOU has not only earned the distinction of being the world's largest university with a student base of almost three million, but it has also introduced many initiatives like inviting feedback from students online as a step to bring in more accountability.

"I am not shy of experimenting, and university is a place where one looks for new ideas," says Dr Pillai. "Unfortunately during the 39 years of my experience in the university system, what really struck me is the increasing rigidity in our system. We need to become more flexible and promote the independent initiatives of students and teachers," he adds.

However, Pillai clarifies that we cannot blame the system for it. "We make the system and it is up to us to make it work. Rules and regulations are just frameworks; every teacher should have the ability to contextualise and then help to change it."

He says that knowledge and skills is the "text" of education. If you want to apply this text of knowledge to society, then you have to understand the "context" of society, which is dynamic and changes from time to time and place to place. "Once, when I talked about the text and context of education at a convocation, a student walked up to me and said, 'There is no text or context in education today, there is just test and contest,' and he was right. Exams and degrees are like shackles of education," he asserts.

All through his 39 years of service as a teacher, researcher, institution builder and educational administrator, Pillai has been interacting very closely with the institutions at the grass-root levels with students, teachers, college and university authorities, State Councils for H.E. and Chancellor's offices, gathering inputs from them and promoting independent initiatives of institutions. This provided the real strength for Prof. Pillai in contextualizing and implementing the various schemes with participation of all stakeholders.

In his role as a leader of one of the largest universities in the world, Prof. Pillai is committed to make learning more open, joyful and flexible so that others can experience the beauty of learning, as he did once walking through the green fields in Kerala.

#### digitalLEARNING Education Investment Summit, April 23, 2010, New Delhi

# Exploring the Investment Space in Education

www.eINDIA.net.in/2010/digitallearning/education\_investment\_summit

The Education Investment Summit 2010, held on April 23, 2010, at The Claridges, New Delhi, brought together India's top-notch educational entrepreneurs, CEOs, private equity Investors, Entrepreneurs, Policy Makers, Educationists, Senior Management from Schools, Colleges, Universities, Professional Training Centers, Education Technology Vendors & eLearning



Sharda Prasad, Director General, Directorate General of Employment and Training

funders, venture capitalists, bankers, advisors and educational consultants to explore opportunities in private equity, venture capital and institutional investments in various streams of education sector.

The Education Investment Summit became a prolific interface between investors and entrepreneurs aspiring to be part of the emerging education growth story of the country. At a broader level, it also helped all stakeholders to explore newer potential for their growth and an opportunity to build new partnerships and refresh existing collaborations.

The summit witnessed high-level participation from leading Private Equity & Venture Capital Funds, Institutional Companies, IT Solution Providers & Suppliers, Educational Consultants.

Some of the top issues that caught recent limelight includes - 'Right To Education Act': the Cabinet Committee's approval for establishment of a National Knowledge Network (NKN) to be implemented by National Informatics Centre (NIC) of Government of India; announcement of the revised 'ICT in Education Policy' for introduction of computer-based education at secondary and senior secondary levels of nearly 108,000 government and government-aided schools across the country; and National Skills Development Mission.

#### EMERGING INDIAN EDUCATION SECTOR – CREATING OPPORTUNITIES THROUGH STRATEGIC INVESTMENTS

The fist session, 'Emerging Indian Education Sector' witnessed deliberation on the potential avenues of investment in the education sector.

According to Sharda Prasad, Director General, Directorate General of Employment & Training, "Education investment is an emerging area and has tremendous possibilities. Education and skill development have been the focus at the Directorate General of Employment



Bhanu Mehrotra, Member - Infrastructure Advisory Group, International Finance Corporation

> and Training, which was given a head start by Pt Nehru in the 1950's. However, the urgency is now even more pronounced. The median age of India is 24 years currently. While the rest of the world is aging, India has a population which is young and dynamic. Planners of the country have felt the need to use this opportunity to the best advantage. The 11th Five Year Plan is actually called a plan for education development and a lot of funds are being allotted for skills development."

"In skills development, we have now



L to R: Dinesh Agarwal, Institute of Clinical Research India; Sanket Deshpande,F ortress Financial Services; Sandeep Aneja, Kaizen Private Equity; Satish Jha, OPLC India Foundation ; Astitva Pandey, YES Bank.

started with sectoral training. Until recently, the industry was not involved in skills development. But of late, industry linkages have been encouraged. The Yashpal Committee Report for reforms in higher education sector has recommended the setting up of the National Council for Higher Education and Research for addressing systemic issues in higher education. The government has realised that for such a mammoth task, the PPP model is mandatory."

One of the issues relating to SDC's is the provision for training of trainers. 15 training of trainer institutes will be set up in the PPP model. In terms of gender parity, it has been observed that there has been increasing rate of women's participation in the workforce. Rs120 crores will be set aside for skills training of girls and training of trainers.

According to Bhanu Mehrotra, Member - Infrastructure Advisory Group, International Finance Corporation, India invests 3.2%- 4.4% of the GDP in education. As against the required 6%. Public funding is inadequate. IFC fosters sustainable economic growth in developing countries by financing private sector investment, mobilizing capital in the international financial markets, and providing advisory services to businesses and governments.

#### ANALYSING INVESTMENT LANDSCAPE OF EDUCATION SECTOR – STAKEHOLDER PERSPECTIVES

The key panelists in the session included Sanket Deshpande, Asst. Vice President, Fortress Financial Services; Sandeep Aneja, Managing Director, Kaizen Private Equity; Astitva Pandey, DirectorCorporate Finance, YES Bank; Dinesh Agarwal, CFO, Institute of Clinical Research India; Satish Jha, Chairman, OPLC India Foundation.

According to Sanket Deshpande, "In India, the population between the age group of 2-24 years is more than 50 crore. This segment will be the key focus of the education sector. Investment

has huge opportunities in the higher education and school education sector. Creating a pool of skilled workforce is also an urgent requirement which the government of India has increasingly emphasized upon."

Sandeep Aneja, mentioned that his company, Kaizen has been interested in companies that bring in good corporate training and management skills. New models in schools and technology enabled campuses would be a draw for investors. There is increased opportunity in the test preparation segment in the K-12 sector.

According to Dinesh, Clinical Research in India has always looked at creating cutting edge courses for new industries. Biotechnology is a huge industry across the world. India can also tap into the potential. Creating opportunities for the population in the research and development area will be necessary. The health care industry is also attracting huge investments and so should be the research focus.

The criterion for investment for YES Bank have included: adequate background research of the promoters, with plans that have long term strategies and investment sustainability options; strong emphasis on the quality of education imparted, since quality is a major criterion by which an investment can survive in the long run; and ventures that are also willing to invest in technology for advancement.

## PPP MODELS FOR EDUCATION SECTOR

Subhash C Khuntia, Joint Secretary,



Subhash C Khuntia, Joint Secretary, Ministry of HRD, Government of India

Ministry of HRD, Government of India, in his keynote address reiterated that the demographic advantage of India leaves it at a better position than other countries. Education will remain very relevant in the 11th Five Year Plan. The Right to Free and Compulsory Education has now become a law, the implementation of which will require enormous amounts of fund.

India requires many more knowledge workers, which means that investment in education needs to be increased. The private sector needs to move in to fill the gap. Public Private Partnership models are being worked out to ensure that the overall objectives are achieved. The aim now is to establish model schools in each block with around 1500 students in each school. Encouragement will be provided sector for management of the schools, who will have full autonomy to run these schools. Government will sponsor meritorious students and reimburse their fee. For the private sector it becomes an investment opportunity.

Similar will be the case for skill development initiatives, where more than1000 polytechnics will be set up in the PPP model. The infrastructure so created can be used further for training of youth in skills. To improve the Gross Enrollment Ratio, there is tremendous scope for investment in the higher education sector.

#### CAPITALISING EDUCATION TECHNOLOGY SECTOR – THE BIG BANG OPPORTUNITY

Key panelists at the session included: Sanjay Jain, Partner, Taj Capital Partners; Amit Chander, Baring PE Partners; Anirudh Singh, Investment Analyst, Canaan Partners; Vivek Agarwal, CEO, LIQVID.

According to Amit Chander, technology in India is still not the key driving factor. If fact, it is going to be of great importance in the coming years. The education technology sector has huge scope for investment. These include the informal education sector and companies working towards advancing technological integration in schools.

Companies who have developed technology solutions and have prototypes successfully working in different schools, and are looking for large scale expansions are eligible for investments.

Market plan of the clients are crucial. According to Anirudh, entrepreneurs who have a good business plan, backed by concrete strategies to tap the market, based on relevant needs and demands, can attract investments. The scale of operations needs to be large and should have an addressable market.

Any company which uses technology as a tool to scale up, including coaching, test preparation and online tutoring will be the focus for investments. Companies catering to the requirements of the K-12 sector can gain ground. In the current scenario, the K-12 coaching industry has captured only 3% of the market potential while the rest of lucrative segment still



L to R: Anirudh Singh,Canaan Partners; Amit Chander, Baring PE Partners; Vivek Agarwal, LIQVID; Sanjay Jain, Taj Capital Partners

remains to be tapped.

Another perspective is to shift the locus from the teacher to the student, with the teacher acting as the facilitator in education. Upgrading IT infrastructure in schools can also attract good investment options. According to Jain, Taj capital partners is an advisory company which also manages propriety capital. The company has been focusing on ICT business of the government. Currently there is huge scope for digitisation of classrooms. Two of the major investment options include digitisation of classrooms and creation of digital content.

Wide investment options are also available in the government education initiatives. The Sarva Shiksha Abhiyan is one of the major education projects of the government, which is now sought to be promoted through Public Private Partnership model. In this model, the government seeks go bring in private management of schools under its



L to R: Daman Soni, Concept Gears; Ashish Garg,Global eSchools & Communities Initiative; Dipanjan Banerjee, digitalLEARNING; Maj. Gen. S B Akali, Global Institute of Healthcare Management; Anand Kannan, Valued Epistemics; Dr. Shubnum Singh, Max Healthcare Institute

flagship programme, giving considerable autonomy to the private sector.

Vocational training and skill development segment is also the focus for investment. Companies working towards employability of the working professionals and providing added skills through new and innovative use of technology potential sources for investment.

#### 'THE WAY AHEAD' – STRATEGIES FOR THE FUTURE OF EDUCATION IN INDIA

The panelists of the session included: Ashish Garg, Regional Coordinator-Asia, Global eSchools & Communities Initiative; Dr. Shubnum Singh, Chief Medical Affairs (External), Max Healthcare Institute; Maj. Gen. S B Akali, Director, Global Institute of Healthcare Management; Anand Kannan, Managing Director, Valued Epistemics; Daman Soni, Founder, Concept Gears.

The recent economic downturn left some marks on the generation of students entering the job market but with a good scope of healing the bruises. Like health and nutrition sector, education sector is one of the areas where consumers are involved in making investments that are non-discretionary in nature.

Substantial government investments coming into India's emerging education sector is evident from budget allocations in the 11th Five-Year Plan (2007-12), based on recommendations of National Knowledge Commission (NKC). It is expected that the education sector will be built on the increasingly accepted model of PPP. Heightened interest among Private Equity and Venture Capital funds to invest in Indian education sector are reposing entrepreneur confidence and reasserting growth projections. \\

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