

A Special Edition

# ELS

Education Leadership Summit 2022



## **THE REAL** Higher Education *Reforms*

The youth in India want quality education that enables adequate employment opportunities.



# RISE PROGRAM

Anchor of Eric & Wendy  
Schmidt's \$1 billion  
philanthropic commitment

RISE is an initiative of Schmidt Futures and the Rhodes Trust. The flagship program of Schmidt Futures and the anchor of a broader \$1 billion philanthropic commitment from Eric and Wendy Schmidt, [Rise](#) finds brilliant people who need opportunity and supports them for life as they work to serve others. Rise will build a lifelong community of students, teachers, and institutions across sectors who aim to serve others.

The program, which identifies young people between the ages of 15 and 17 from around the world, is designed to encourage a lifetime of service and learning by providing support that could include scholarships, career services, and funding opportunities to help these leaders serve others for decades to come.

Since its inception, Rise has welcomed over 150,000 people from over 170 countries to its community and selected 200 Winners from 69 countries of origin who have showcased their brilliance. Over the last two years, a total of 17 Indian students have been selected as Rise Global Winners.

**APPLICATIONS ARE OPEN FOR THE 2023 RISE GLOBAL CHALLENGE. STUDENTS FROM THE AGES 15- TO 17-YEAR-OLD ARE ELIGIBLE TO APPLY.**

The online applications are open on the RISE website (<https://www.risefortheworld.org/apply-to-rise/>) and are available until January 25, 2023, at 16:59 GMT.

75  
आज़ादी का  
अमृत महोत्सव

डॉ. सुभाष सरकार  
Dr. SUBHAS SARKAR



राज्य मंत्री  
शिक्षा मंत्रालय  
भारत सरकार  
MINISTER OF STATE  
FOR EDUCATION  
GOVERNMENT OF INDIA



### MESSAGE

I am delighted to learn about the special edition on education and its ecosystem being brought out as part of **The Economic Times Education Leadership Summit** on November 23, 2022, in Delhi. Greetings and best wishes to everyone associated with the Summit and its special edition.

From education to employment, start-ups to entrepreneurship, and entrepreneurship to empowerment, our government has been working tirelessly to create a vibrant ecosystem that enables our youth to flourish in different fields, including education and skill enhancement.

I would like to quote Pujya Swami Vivekananda Ji here,

*“Education is not filling the mind with a lot of facts. Perfecting the instrument and getting complete mastery of one’s mind is the ideal education.”*

The Summit brings together education and skill leaders, industry and entrepreneurs, professionals, academicians, etc from diverse areas to brainstorm on a range of issues facing the nation. It is our firm belief that one of the primary drivers of growth is to connect the aspirations and skills of our youth with opportunities. Each problem that needs to be solved is an opportunity.

The *25-year period of Amrit Kaal till 2047* is crucial for both, our *Yuvashakti* and the nation. Let us continue to march ahead toward realizing our vision of building a glorious, self-reliant India and creating a bright future for ourselves, as well as the nation.

Best wishes for the success of the Summit. I am sure the deliberations will be fruitful.

(Dr. Subhas Sarkar)

डॉ. (श्रीमती) पंकज मित्तल

(पूर्व कुलपति, बीपीएस महिला विश्वविद्यालय, हरियाणा)  
महासचिव

Dr. (Mrs.) Pankaj Mittal

(Former Vice Chancellor, BPS Women University, Haryana)  
Secretary General



भारतीय विश्वविद्यालय संघ

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**Association of Indian Universities**

AIU House, 16, Comrade Indrajit Gupta Marg (Kotla Marg),  
New Delhi-110 002

3<sup>rd</sup> November, 2022

### MESSAGE

I am happy to know that ETGovernment.com is bringing out a special edition on education and skill enhancement as part of the Economic Times Education Leadership Summit to be held on November 23, 2022, in Delhi.

The outbreak of the COVID-19 pandemic has disrupted various sectors of the economy, including the education sector which is an important determinant of the economic future of a country. Lockdown due to this pandemic created a lot of challenges. However, at the same time it created many opportunities for the higher education sector in India. While the response of higher education institutions, at the onset of the pandemic, to promptly adopt technology and maintain academic continuity was commendable, the digital divide and disruptions in the global supply chain for equipment such as webcams and microphones impacted the quality of online sessions. Nevertheless, the most important consequence of the surge in remote learning is an improvement in the level of access to quality education. The HEIs are becoming better at teaching/learning in an online environment and in using newer methodologies, technologies, software tools, and other resources for enhancing the quality of the learning experience.

To make learning more impactful, teachers also need to think differently about how they approach an online class. They need to ensure that the Academic content is not only accessible but the online delivery medium is also of the good quality and user friendly. It is equally imperative to be thoughtful about how students process information in a virtual environment. For example, students who might be nervous about speaking aloud in class may feel empowered by an online discussion board where they can take additional time to formulate a thoughtful response.

I hope that the Economic Times Education Leadership Summit will address the complex issues of education and its ecosystem and convert it into actionable recommendations.

I wish the Education Leadership Summit a grand success.

(Pankaj Mittal)  
Secretary General

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Karnataka Higher Education and Skill Development Minister **Dr CN Ashwath Narayan**

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# India's Education Budget for 2022-23 FY

For the 2022-23 fiscal year, the budget for school education spending is Rs 63,449 crore and has increased by 22 per cent over its previous year's revised allocation. The budget for higher education has also increased by 13 per cent over its previous year's allocation and is Rs 40,828 crore. The following figures highlight the approximately yearly budgets and education expenditures of the state governments.



## STATE BUDGET VS EDUCATION BUDGET FOR 2022-23 FY (RS IN CR)

SL. No.	State	Yearly Budget	Education Budget
1	Uttar Pradesh	582956	75165
2	Maharashtra	495405	80437
3	Tamil Nadu	333251	43799
4	Rajasthan	273458	49627
5	West Bengal	260629	43466
6	Karnataka	251541	32018
7	Madhya Pradesh	247715	39326
8	Telangana	245257	16043
9	Andhra Pradesh	239986	30385
10	Bihar	223021	40828
11	Gujarat	218408	30537
12	Kerala	173588	25430
13	Odisha	164411	24994
14	Haryana	142204	19711
15	Punjab	119913	15654
16	Assam	115028	23095
17	Chhattisgarh	104000	19574
18	Jharkhand	94387	14220
19	Delhi	71085	15507
20	Uttarakhand	60003	10896
21	Himachal Pradesh	46023	8669
22	Goa	21691	3071
	<b>Total</b>	<b>4483960</b>	<b>662452</b>

Source: Budget papers of individual states.

# The REAL higher education reforms

*The youth in India wants quality education that enables adequate employment opportunities*

The Government of India has taken up several significant steps in the past to improve the education sector. These steps pertain to every aspect of both school and higher education and have already started showing transformational changes in education. The National Education Policy 2020 (NEP) is central to these ongoing reforms in the education sector, through which the existing 34-year-old policy has been revamped.

Why these changes were required, and how the policy has been formulated? The NEP fulfils a long-felt need to revamp the education sector. The last education policy was formulated in 1986. Since then the world has changed drastically in every field, including science and technology, communication, economics, etc. For the young generation of India to be ready for this change, there was a dire need to bring transformative changes in the education system.

To keep pace with this change, the government wanted an education system that could prepare students to meet the demands of the 21st century and could enable them to become job givers than job seekers and give them the ability and strength to work for the progress of their country and the whole world and to establish India once again as a global knowledge superpower.

The NEP recommends such transformational reforms that can give a new direction to India's vast education system of 15.5 lakh schools, about 50,000 higher education institutions (HEIs), 28.53 crore students and 108 lakh teachers. It emphasizes increasing the enrolment ratio, enhancing the quality of education through innovation and research and bringing out the best of every student's individual potential.

Although the 1986 education policy called for a review every five years, the policy was reviewed only once in 34 years, in 1992. Various stakeholders were consulted to prepare the NEP 2020. Work on the formulation of the NEP 2020 started in 2015. Around two lakh suggestions were received from 2.5 lakh gram panchayats, 6600 blocks, 6000 ULBs and 676 districts.

The Committee for Evolution of the New Education Policy (CENEP) was constituted on October 31, 2015, under the

chairmanship of the Late TSR Subramanian. Thereafter, another committee for the Draft National Education Policy under the chairmanship of eminent scientist K Kasturirangan was constituted in June 2017 to examine all inputs/suggestions and prepare a draft policy.

The Committee submitted its report to the Ministry of Education on May 31, 2019. The vision of the policy is to transform India into a vibrant knowledge society and global knowledge superpower through broad-based flexible, multidisciplinary education suited to 21st-century needs.

More students are attending higher education institutions – the challenge now is how to promote equity and quality. This century has witnessed a revival of higher education reforms worldwide. India is no exception. Several reform measures recently introduced have contributed to the system's expansion, quality improvement and enhanced relevance.

The education sector has seen a host of reforms and improved financial outlays in recent years that could possibly transform the country into a knowledge hub. With human resources increasingly gaining significance in the overall development of the country, the development of the country's education infrastructure is expected to remain the key focus in the current decade.

The youth in India want quality education that enables adequate employment opportunities. I wish the managements of higher education institutions a happy teaching and skilling new year.



**T. RADHAKRISHNA**

Editor, South  
ET Government

# PM SHRI Schools to showcase all components of NEP-2020

*More than 14,500 schools across the country are to be developed as PM SHRI Schools to showcase all components of NEP-2020.*

On September 7, 2022, the Union Cabinet chaired by Prime Minister Narendra Modi approved a new centrally sponsored scheme, PM ScHools for Rising India (PM SHRI Schools). This will be a new scheme for the development of more than 14,500 schools across the country as PM SHRI Schools by strengthening select existing schools being managed by the central government, state governments/union territories and local governments.

PM SHRI Schools will showcase all components of the National Education Policy 2020, act as exemplar schools and also offer mentorship to other schools in their vicinity. The PM SHRI schools will deliver quality teaching for the cognitive development of students and will strive to create and nurture holistic and well-rounded individuals equipped with key 21st-century skills.

**IMPLEMENTATION STRATEGY:** The scheme would be implemented through the existing administrative structure available for Samagra Shiksha, KVS and NVS. The other autonomous bodies would be involved on a specific project basis as required. These schools shall be monitored vigorously to assess progress and understand the challenges faced in the implementation of the NEP 2020.

**SELECTION METHODOLOGY:** Selection of PM SHRI schools will be done through Challenge Mode wherein schools compete for support to become exemplary schools. The schools would be required to self-apply on the online portal. The portal will be opened four times a year, once every quarter, for the first two years of the scheme. The Elementary schools (Class 1-5/1-8) and the Secondary/ Sr. Secondary Schools (Class 1-10/1-12/6-10/6-12) managed by Centre/state/UT governments/ local self-governments having UDISE+ code would be considered for selection under the scheme. Selection would be done through a three-stage process with definite timelines:

**STAGE 1:** States/UTs would sign MoU agreeing to implement NEP in its entirety with the Centre laying down the commitments for supporting these schools for achieving specified quality assurance as PM SHRI schools.

**STAGE 2:** In this stage, a pool of schools that are eligible to be selected as PM SHRI Schools would be identified based on the prescribed minimum benchmark through UDISE+ data.

**STAGE 3:** This stage is based on the challenge method for fulfilling certain criteria. Only the schools from the above eligible pool of schools would compete to fulfil the challenge conditions. Fulfilment of conditions would be certified by States/KVS/JNV through physical inspection.

States/UTs/KVS/JNV shall verify the claims reported by Schools and recommend the list of schools to the Ministry. Two schools (one Elementary and one Secondary/Senior Secondary) would be selected per block/ULB with an upper limit of a number of total schools across India. Geo-tagging of schools for the selection and monitoring of PM SHRI schools will be done.

The services of Bhaskaracharya National Institute for Space Applications and Geo-informatics (BISAG-N) will be taken for geo-tagging and other related tasks. An Expert committee would be constituted for the final selection of schools.

#### **BENEFICIARIES**

More than 18 lakh students are expected to be direct beneficiaries of the scheme. The further impact will be generated through the mentoring and handholding of the schools in the vicinity of PM SHRI schools.



The scheme of PM SHRI schools is to be implemented as a Centrally Sponsored Scheme with a total project cost of Rs 27,360 crore which includes a central share of Rs 18,128 crore for the period of five years effective from the year 2022-23 to 2026-27.



# Digital University

*The university will provide access to students across the country for world-class quality universal education with personalised learning experiences at their doorsteps.*

The Government of India in its Budget 2022-2023 announced the establishment of a Digital University. The university will provide access to students across the country for world-class quality universal education with personalised learning experiences at their doorsteps. This will be made available in different Indian languages and digital formats. The University will be built on a networked hub-spoke model, with the hub building cutting-edge ICT expertise. The best public universities and institutions in the country will collaborate as a network of hub spokes. The Department of Higher Education, in consultation with University Grants Commission (UGC), All India

Council for Technical Education (AICTE) and other stakeholders has initiated the process to ensure the early start of this digital university.

To ensure last-mile connectivity in rural areas, the BharatNet project is being implemented by the Department of Telecommunications. Under this project broadband connectivity mainly through optical fibre cable (OFC) is provided to the Gram Panchayats (GPs) in the country. Further, where there is low internet connectivity, educational content is being provided through SWAYAM Prabha DTH channels, according to Minister of State for Education Dr Subhas Sarkar.

The Department of Higher Education, in consultation with University Grants Commission (UGC), All India Council for Technical Education (AICTE) and other stakeholders has initiated the process to ensure the early start of this digital university.



# National Educational Technology Forum

*The NETF is tasked to provide a platform for a free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration and so on.*

The National Education Policy 2020 envisages setting up of an autonomous body, the National Educational Technology Forum (NETF), to provide a platform for a free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration and so on, both for schools and higher education institutes.

The aim of the NETF is to facilitate decision-making on the induction, deployment and use of technology by providing to the leadership of education institutions, state and Central governments and other stakeholders the latest knowledge and research as well as the opportunity to consult and share the best practices.

The NETF is tasked to provide independent evidence-based advice to the Central and state government agencies on technology-based

interventions, to build intellectual and institutional capacities in education technology, to envision strategic thrust areas in this domain and to articulate new directions for research and innovation.

Other functions include laying down standards of content, technology, and pedagogy for online/digital teaching-learning. These standards will help to formulate guidelines for e-learning by states, boards, schools, HEIs, etc, maintaining a regular flow of authentic data from multiple sources including educational technology innovators and soliciting inputs from national and international educational technology researchers, entrepreneurs and practitioners.

On September 2, 2022, Prof Anil Sahasrabudhe took charge of the National Educational Technology Forum as its chairman.

## Digital Shakti for skilling women in cyberspace

*This new phase will prove to be a milestone in ensuring safe cyber spaces for women.*

The National Commission for Women (NCW) has launched the fourth phase of the Digital Shakti campaign, a pan-India project to empower and skill women in cyberspace.

“This new phase will prove to be a milestone in ensuring safe cyber spaces for women. Digital Shakti has been accelerating the digital participation of women and girls by training them on how to use technology to their advantage and to keep themselves safe online,” said NCW chairperson Rekha Sharma while highlighting the continuous

efforts of the panel to empower women in every sphere.

“I believe the project will continue to contribute towards the larger goal of fighting cyber violence against women and girls and make the internet a safer space for them,” Sharma said.

Digital Shakti started in June 2018 to help women across the nation to raise the awareness level on the digital front, to build resilience, and fight cybercrime in the most effective ways.



Through this project, over 3 lakh women across India have been made aware of cyber safety tips and tricks, reporting and redressal mechanisms, data privacy and usage of technology for their benefit.

## NISHTHA Training for Rural Teachers

*Each teacher and school principal is expected to participate in at least 50 hours of CPD opportunities every year.*

The NEP 2022 envisages giving continuous opportunities to teachers for self-improvement and learning the latest innovations and advances in their professions. Each teacher and school principal is expected to participate in at least 50 hours of continuous professional development opportunities every year for their own professional development, driven by their own interests. The CPD can be offered in multiple modes, including in the form of local, regional, state and national, workshops as well as online teacher development modules.

The Department of School Education and Literacy, Ministry of Education launched a National Mission to improve learning outcomes at the elementary level through an integrated teacher training programme called NISHTHA – National Initiative for School Heads’

and Teachers’ Holistic Advancement on August 21, 2019, under the centrally sponsored scheme of Samagra Shiksha. In view of the COVID pandemic, NISHTHA online elementary teachers were launched on October 6, 2020, and the remaining training of NISHTHA at the elementary level was conducted online by the NCERT on the DIKSHA platform using high quality professionally made e-content.

During 2021-22, NISHTHA online has been extended to the secondary level (NISHTHA 2.0) and Foundational Literacy and Numeracy (NISHTHA 3.0) for secondary, pre-primary and primary respectively with a focus on improvement in the quality of teachers and learning outcomes of students, as per the vision of the NEP 2020, said Minister of State for Education Annapurna Devi.

# Digital Education Tools

*The nation's digital infrastructure for providing quality e-content for school education in states/UTs and QR-coded Energized Textbooks for all grades.*

A comprehensive initiative called PM eVIDYA has been initiated as part of Atma Nirbhar Bharat Abhiyaan, which unifies all efforts related to digital/online/on-air education to enable multi-mode access to education.

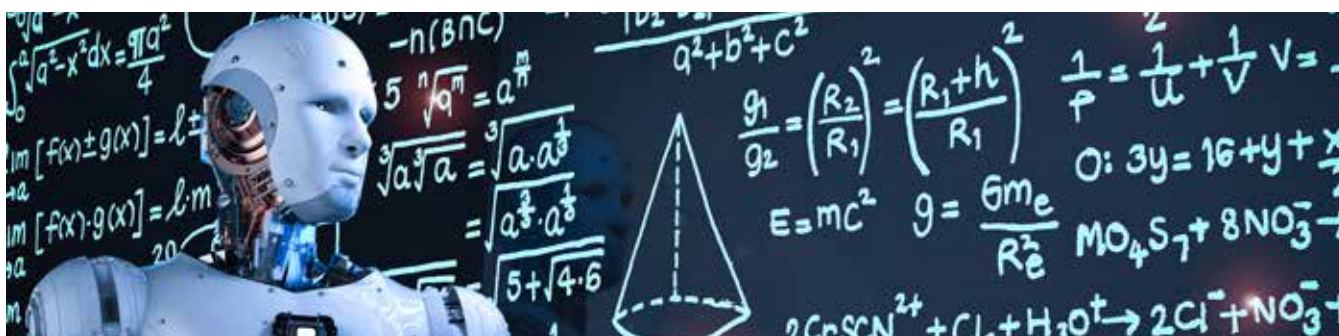
**DIKSHA:** The nation's digital infrastructure for providing quality e-content for school education in states/UTs and QR-coded Energized Textbooks for all grades (one nation, one digital platform). As of 21 July 2022, DIKSHA has more than 501 crore learning sessions, more than 5,879 crore learning minutes and more than 3,825 crore page hits with more than 4.06 crore average daily page hits. A total of 2,92,178, pieces of e-content are live on DIKSHA as of date.

**One earmarked Swayam Prabha TV channel per class from 1-12 (one class-one channel):** The same content is simulcast through YouTube and Jio channels. To date, 31,816 calls were received to enquire about the telecast of educational programmes through PM

eVIDYA IVRS have been responded to. A total of 89,55,857 unique users and 2,83,21,959 enrollment are there on the SWAYAM portal from all over the country in various courses till July 2022.

**Extensive use of radio, community radio and CBSE podcast - Shiksha Vani:** 3,529 pieces of curriculum-based radio programmes (Classes 1-12) for its dissemination/ broadcast on 397 Radio Stations (11 GyanVani FM Radio Stations, 254 Community Radio Stations), 132 All India Radio stations, Podcasts on iRadio and JioSaavn Mobile apps. Till now 1,425 live programs have been broadcast on iRadio.

**Special e-content for the visually and hearing impaired developed on Digitally Accessible Information System and in sign language on NIOS website/ YouTube:** In all 3,520 textbook-based ISL videos recorded and 597 videos have been uploaded on DIKSHA from classes 1 to 5. A 10,000 words ISL dictionary has been uploaded on DIKSHA. A total of 3,474 audiobook chapters were uploaded on DIKSHA.



## Artificial Intelligence in education

*NISHTHA training programme is administered online through the DIKSHA portal, which integrates AI solutions to facilitate self-paced learning and close monitoring.*

The NEP 2020 has recommended concerted curricular and pedagogical initiatives, including the introduction of contemporary subjects such as Artificial Intelligence, Design Thinking, Holistic Health, Organic Living, Environmental Education, Global Citizenship Education (GCED), etc at relevant stages.

Accordingly, steps have been taken up for improving the quality of teacher education such as the introduction of the (04) Four Year Integrated Teacher Education Programme (ITEP) and NISHTHA Integrated Training Programme versions 1.0, 2.0, and 3.0 have been introduced for different stages of school education for teachers,

head teachers/principals and other stakeholders in educational management.

NISHTHA training programme is administered online through the DIKSHA portal, which integrates AI solutions to facilitate self-paced learning and close monitoring.

Meanwhile, the Central Board of Secondary Education introduced Artificial Intelligence as a subject in Class IX from the session 2019-2020 and in Class XI from the session 2020-2021 in their affiliated schools.

# Performance Grading Index 2020-21: The report grades the performance of states/UTs on a uniform scale

*Indian Education System is one of the largest in the world with about 14.9 lakh schools, 95 lakh teachers, and nearly 26.5 crore students*

The Department of School Education and Literacy has recently released the Performance Grading Index (PGI) for states/UTs for 2020-21, a unique index for evidence-based comprehensive analysis of school education systems across states/UTs.

The Indian Education System is one of the largest in the world with about 14.9 lakh schools, 95 lakh teachers, and nearly 26.5 crore students from varied socio-economic backgrounds. The department devised the PGI for states/UTs to provide insights and data-driven mechanisms on the performance and achievements of the success of school education across all states/UTs.

The prime objective of the PGI is to promote evidence-based policy-making and highlight course correction to ensure quality education for all. So far, the department of school education and literacy has released the PGI report for the year 2017-18, 2018-19 and 2019-20. The present report is for the year 2020-21.

The PGI structure comprises 1,000 points across 70 indicators grouped into 2 categories -- Outcomes and Governance Management (GM). These categories are further divided into five domains -- Learning Outcomes (LO), Access (A), Infrastructure & Facilities (IF), Equity (E) and Governance Process (GP).

As was done in the previous years, PGI 2020-21 classified the states/UTs into ten grades -- the highest achievable grade is Level 1, which



is for state/UT scoring more than 950 points out of a total of 1,000 points. The lowest grade is Level 10 which is for scores below 551. The ultimate aim of PGI is to propel states & UTs towards undertaking multi-pronged interventions that will bring about the much-desired optimal education outcomes covering all dimensions. The PGI is expected to help states and UTs to pinpoint the gaps and accordingly prioritize areas for intervention to ensure that the school education system is robust at every level.

A total of seven states and UTs -- Kerala, Punjab, Chandigarh, Maharashtra, Gujarat, Rajasthan, and

Andhra Pradesh have attained Level II (score 901-950) in 2020-21 as compared to none in 2017-18 and 4 in 2019-20. Gujarat, Rajasthan and Andhra Pradesh are the new entrants to the highest achieved level of any state so far.

The newly formed UT -- Ladakh has made significant improvements in PGI from Level 8 to Level 4 in 2020-21 or improved its score by 299 points in 2020-21 as compared to 2019-20 resulting in the highest-ever improvement in a single year.

The PGI scores and grades achieved by states/UTs in 2020-21 bear testimony to the efficacy of the PGI system. The indicator-wise PGI score shows the areas where a state needs to improve. The PGI will reflect the relative performance of all the states/UTs on a uniform scale which encourages them to perform better and to adopt best practices followed by performers.

# Cabinet clears the way for MoU between India & UAE in education

*This MoU will rejuvenate educational cooperation and increase academic mobility between India and UAE.*

The Union Cabinet has recently approved a memorandum of understanding between the Ministry of Education, the Government of India and the Ministry of Education of the Government of the United Arab Emirates on cooperation in the field of education. The objective of the MoU is to further strengthen the ongoing educational collaboration between India and UAE and widen the scope of engagements.

An MoU was signed in 2015 with UAE in the field of education which expired in 2018. In 2019, at a meeting between the education ministers of the two countries, the UAE side proposed to sign a new MoU. The new MoU incorporates changes brought in by the National Education Policy 2020 in India's education ecosystem.

This MoU aims to promote an exchange of information education, capacity development of technical and vocational education and

training (TVET) teaching staff, facilitation of academic collaboration between higher education institutions in both countries for offering twinning, joint degree and dual degree programmes and any such other areas agreed upon.

This MoU will rejuvenate educational cooperation and increase academic mobility between India and UAE besides facilitating the exchange of information in order to promote mutual recognition of these qualifications. It also covers cooperation in TVET as UAE is a major work destination for Indians.

The MoU will be valid for a period of five years from the date of signing and will be automatically renewable with the consent of both parties. Once signed, this MoU shall supersede the earlier MoU signed with UAE in 2015, which will then cease to have an effect.



**The MoU will be valid for a period of five years from the date of signing and will be automatically renewable with the consent of both parties.**

## SKILL INDIA MISSION – BUDGET ALLOCATION

In the Union Budget 2021-22, the government allocated funds worth Rs 2,785.23 crore to the Ministry of Skill Development and Entrepreneurship. From the total amount, the government reserved approximate funds for the following initiatives.

SL. No.	Ministry of Skill Development and Entrepreneurship	Budget 2021-22
1	Development of Skills	Rs 1600 cr
2	National Apprenticeship Promotion	Rs 120 cr
3	Entrepreneurship Skill Development Programme	Rs 50 cr
4	Strengthening of Infrastructure for Institutional Training	Rs 96 cr
5	Strengthening of Skill Institutions	Rs 12 cr
6	Support Regulatory Institutions	Rs 16 cr
7	Skill Acquisition and Knowledge Awareness for Livelihood Promotion	Rs 271 cr
8	Skill Strengthening for Industrial Value Enhancement	Rs 340 cr
9	Pradhan Mantri Kaushal Vikas Yojana	Rs 2505 cr
	<b>Total</b>	<b>Rs 2,785.23 crore</b>



*Ryan International Group of Institutions has been recognized with innumerable awards and recognitions by many organizations for its noteworthy contribution to the Education Sector and Social Service over the last 45 years. Here are the recent awards received by the Ryan Group.*



# AWARDS AND RECOGNITIONS



## ***Lifetime Achievement Award 2022***

*Dr. Grace Pinto, Managing Director, Ryan Group receiving the award from H. E. Mr. Prithvirajsing Roopun, GCSK, President of the Republic of Mauritius at Mauritius, October 2022*

## ***Most Respected Education Brand 2022 by Mid-day***

*Mr. Ryan Pinto, CEO, Ryan Group receiving the award at the Mid-day International Education Icons (Edition 2) event, Dubai*



## ***“Lifetime Achievement Award 2022”***

*On behalf of Dr. Grace Pinto, Ms. Sonal Pinto, Director, Ryan Group receiving the award at the 9th National Conference on K12 Leadership and India Schools Merit Awards.*



## ***Award of Excellence for Ryan Group***

*Hon’ble Home Minister, Shri Rajnath Singh presenting the Award to Dr. Snehal Pinto, Director, Ryan Group during the Festival of Peace, January 2019, New Delhi*



# EMPOWERING AND NURTURING LIFELONG LEARNERS THROUGH HOLISTIC EDUCATION

Under the spearheaded leadership of Dr A F Pinto, Chairman and Dr. Grace Pinto, Managing Director, Ryan Group is committed to follow their underlying philosophy - Excellence in Education and All-Round Development. The Group believes in nurturing lifelong learners, and in the idea that education should be experiential and immersive into arts, culture and international relations. The group has pioneered a number of national and international events to develop different life skills among students.



**Learning Primed by Technology:** Ryan Learning Management System, designed to provide a superior hybrid teaching-learning experience for academic excellence.



**Global Collaboration** with PennHub, The College Board and Cialfo to provide higher education opportunities at top 100 Global Universities.



**Fostering 21st Century Skills** through national and international events such as Indian Model United Nations (INMUN), International Theatre Festival (ITF) and the World Scholar's Cup (WSC).



**Structured Student Exchange Programs** to develop international mindedness to the US, Italy, Switzerland, Australia, Germany, Eastern Europe and the UK.



**Strong Emphasis on Sport and Media Skills**, collaborating with athletes and media personnel to provide world-class coaching in these fields.



**Nurturing Change Makers** through projects based on Compassion, Environment, Health Care, Economic Empowerment and Local Leadership Development.





## *Digital technology trends in higher education to watch for in 2023*

*Keep an eye on these trends and reforms as higher education prepares for a post-pandemic future.*

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**T. RADHAKRISHNA**

**T**echnology is shaping the future of education in many ways. With the shift to remote learning — and the increasing reliance on technology to ensure student health and safety — tech adoption is rapidly accelerating in education.

The recent pandemic has changed the popular old chalk-and-talk offline teaching model to technology-mediated learning. Higher Education Institutes (HEIs) run by the public and private sectors in India are now using or collaborating with online platforms to improve interaction while teaching and learning. Face-to-face learning suffered a major setback but it got converted into an opportunity when most HEIs adopted blended learning.

“With the pandemic, technology came in through the front door.

We all recognized that technology was critically important to keeping teaching, learning, research and administration going,” says Ruchee Anand, Senior Director of LinkedIn India at the Economic Times Education Leadership Summit 2022. “That has brought technology up into leadership-level conversations.”

“As part of the reforms in education, the Ministry of Education has undertaken technology initiatives in education to strengthen its processes, ensuring ease of learning,” says UGC chairman M. Jagadesh Kumar. “The government has implemented policies like the National Education Policy 2020, which will be fully carried out over the course of this decade starting from 2021-22, and will have a strong focus on high-quality vocational education.”

COVID-19 made colleges abruptly shift from offline to online



learning due to which the digital divide raised its ugly head as a social evil. The digital divide arose due to inadequate access to technical gadgets and infrastructure. This widened the gap between students from different socioeconomic backgrounds, says Pankaj Mittal, secretary-general of the Association of Indian Universities.

One of the opportunities to focus amidst the crisis is using technology to improve the content quality used for learning. HEIs are embracing these technologies quickly to overcome the negative aspects of current digital higher education.

### TECHNOLOGY TRENDS

Various trends in the education sector have been deployed with varying degrees of success in the past, but the trends that have emerged in the last few years have completely altered the sector's dynamics and are unquestionably here to stay for the foreseeable future. The digital transformation in the education sector has accelerated immeasurably, causing a shift toward online and cloud-based delivery platforms from primary to higher education.

Edtechs are the new School 2.0, and the value of this sector in India is expected to grow to USD 30 billion in the next decade at its current rate of disruption of the traditional learning process. Mobile technology, cloud services, and virtual reality all deserve credit for opening up new avenues for accessible, immersive learning. Universities and colleges are trying their best to keep up with the changes in higher edutech.

**Growth of AI and AR/VR:** AI is a trend to watch out for in higher education technology. Some HEIs are already using AI for the purpose of invigilating, grading, and library services. To benefit from this trend, universities and colleges must adjust their curriculum to support the integration of AI. In HEIs, students use VR headsets to take practical learning to the next level as the students can witness and take part in technological simulations.

**Increased Online Assessments:** Online assessments in higher education gained momentum in 2022 and are now a trend to watch out for in 2023, as it provides a standardized and reliable means of assessing and evaluating students. Online proctoring is where online invigilators monitor the test takers from start to finish. In addition, the test takers must share their audio, video, and screens with the proctors for the entire test duration. AI-powered online assessment solutions allow moderators to generate numerous question sets. These solutions take screenshots of students at random times while they are taking the exam. AI-driven assessments can help HEIs get precise analyses and reports on students' overall performance. Online exams and evaluations are trends that will shape the future of higher education in 2023. Some HEIs have already adopted AI-driven assessments.

**Big Data:** As the assessment processes are evolving and LMS are finding their way into universities and colleges, big data analytics is also becoming a significant higher education trend to watch out for in 2023. Educators use big data to track student engagement so they can look for engagement trends in their online course activities and make changes to content. Several state governments have already implemented LMS in their colleges.

**National Digital University:** The Union government is all set to launch India's ambitious initiative 'National Digital University' in July 2023 to provide online education in multiple languages. The University will be built on a networked hub-spoke model, with the

hub building cutting-edge ICT expertise. The best public universities and institutions in the country will collaborate as a network of hub spokes. Since the NDU will be built on a networked hub-spoke model, it can develop cutting-edge ICT platforms and digital content, using AI, ML, VR/AR and blockchain. The NDU can integrate the existing capabilities such as SWAYAM, SWAYAM-Prabha, ePG-Pathshala, eGyanKosh, National Digital Library, and Virtual Labs into one organic entity.

### EDUCATION & TRAINING

India holds an important place in the global education industry as the nation has the distinction of being the largest population in the world in the age bracket of 5-24 years with 580 million people, presenting a huge opportunity in the education sector. The country also has one of the largest networks of HEIs in the world.

"With increasing awareness, private HEIs are collaborating with international institutions to provide a global standard of education. Private investments in the Indian education sector have also increased substantially over the past decade. The demand for specialised degrees is also picking up with more and more students opting for specific industry-focused qualifications. HEIs in India are focusing on creating online programmes due to the increasing demand from learners," says Pankaj Mittal.

### MARKET SIZE & MAJOR DEVELOPMENTS

The education sector in India was estimated to be worth US\$ 117 billion in FY20 and is expected to reach US\$ 225 billion by FY25. India had 38.5 million students enrolled in higher education in 2019-20, with 19.6 million male and 18.9 million female students.

The number of colleges in India reached 42,343 in FY20. As of November 25, 2022, the number of universities in India stood at 1,072. In 2022-23, there are 8,902 total AICTE-approved institutes in India. Out of these 8,902 institutes, there are 3,577 undergraduate, 4,786 postgraduate and 3,957 diploma institutes. The Indian edtech market size is expected to reach US\$ 30 billion by 2031, from US\$ 700-800 million in 2021.

According to KPMG, India has also become the second largest market for E-learning after the US. The online education market in India is expected to grow by US\$ 2.28 billion during 2021-2025, growing at a CAGR of almost 20%. The market grew by 19.02% in India in 2021. In addition, FDI equity inflows stood at US\$7.92 billion from April 2000-June 2022, revealed the data released by the Department for Promotion of Industry and Internal Trade (DPIIT).

This sector has witnessed some major investments and developments in the recent past. In October 2022, Byju's raised US\$ 250 million from its existing investors, including Qatar Investment Authority. In September 2022, UnfoldU Group announced plans to enter the space of Metaverse education. In August 2022, Edtech startup Sunstone, which offers higher education programmes, raised US\$ 35 million in funding, with participation from Alteria Capital and WestBridge Capital. Indian edtech startups have received a total investment of US\$ 3.94 billion across 155 deals in FY22.

With cutting-edge technologies such as AI, ML, IoT and blockchain, India's education sector will redefine itself in the years to come. It has also embraced the Education 4.0 revolution, which promotes inclusive learning and increased employability, adds Pankaj Mittal. ■



**SHRI. BASAVARAJ S. BOMMAI**  
Hon'ble Chief Minister  
Government of Karnataka



**DR. C. N. ASHWATHNARAYAN**  
Hon'ble Minister for Department  
of Higher Education, IT&BT, Science &  
Technology, Skill Development,  
Entrepreneurship & Livelihood

## Department of Skill Development, Entrepreneurship and Livelihood Government of Karnataka

### Karnataka: The Hub for Skilled Workforce in India

The Department of Skill Development, Entrepreneurship and Livelihood (SDEL), Government of Karnataka, was created for convergence of the key institutions, programmes and initiatives for skill development, entrepreneurship, and livelihood in the state.

The Commissionerate of Industrial Training and Employment, National Livelihood Missions, Karnataka German Technical Training Institute (KGTTI), Government Toolroom and Training Centre (GTTC), Centre for Entrepreneurship Development of Karnataka (CEDOK) and Karnataka Skill Development Corporation (KSDC) are the major institutions of the SDEL Department.

These initiatives and institutions collectively drive the vision of 'Kaushalya Karnataka'.

### UDYOGA



The upgrading of 150 government ITIs at the cost of Rs. 4,636 crores through a partnership with TATA Technologies and a consortium of industries



For readying the youth of Karnataka for Industry 4.0 jobs



State-of-the-art technologies installed



Pioneering model is now being replicated in other states of India

The SDEL Department, Government of Karnataka, with the support of Tata Technologies Limited and 20+ industry partners has launched the 'Udyoga' programme to transform 150 Government-owned Industrial Training Institutes (ITI) into technology hubs.

A first-of-its-kind initiative in India, Udyoga aims to create skilled workforce across Karnataka to assist industries in the Industry 4.0 adoption by equipping the youth with the requisite skillset in emerging technologies including IoT, advanced plumbing, advanced manufacturing, robotics, automotive manufacturing, electric vehicles and industrial automation.



Udyoga aims to create 20,000 highly skilled individuals per annum through long term courses and train 1,00,000 professionals per annum through short-term courses. Udyoga envisions a pool of highly trained workforce with specialized skills for employment and entrepreneurship.



# Karnataka German Technical Training Institutes

Department of Skill Development, Entrepreneurship and Livelihood (SDEL), Government of Karnataka has established Society for Karnataka German Multi Skill Development Center and has started five Multi Skill Development Centres as Karnataka German Technical Training Institutes (KGTTIs) in the state at Bengaluru, Kalaburagi, Belagavi, Mangaluru and Hubballi with the technical support of GIZ International Services, Germany. The primary mission of KGTTI is to provide broad-based multidisciplinary world class training with state-of-the-art infrastructure in various technical fields for development of specialized skills in alignment with the global industry requirements.



Since its inception, KGTTI has trained more than 36,000 youth in the seven skill sectors including industrial automation, electrical, construction, automotive, information technology, manufacturing, and welding technologies.

KGTTI has entered into MoUs with more than 100 industries and organizations including Schneider Electric-France, Volkswagen-Germany, Mastercam University, Labtech International – Indonesia, Cisco, Red Hat and AWS, among others.



# Government Toolroom and Training Center

Government Tool Room & Training Centre (GTTC) was established in 1972 in Bengaluru with the assistance of the Government of Denmark. Today, with 28 subcentres and 15 centres of excellence (CoE), GTTCs has till date provided long term and short term vocational education and training to over 1 lakh youth across the state in multiple domains including tool and die making, precision manufacturing, electronics, mechatronics, and tool engineering.

Additionally, GTTC is recognized as a Scientific & Industrial Research Organization by the Ministry of Science & Technology, Government of India. GTTC trainees participated in the India Skills 2021 national competition and emerged as champions with gold medals in plastic die engineering, mechanical CAD engineering and CNC milling, among other medals and medallions for excellence.



## SIEMENS

GTTC has partnered with Siemens Industry Software and Design Tech Systems for setting up 4 CoEs in Karnataka. Each CoE is equipped with 14 labs for various disciplines including design and validation, process instrumentation, CNC, renewable energy and robotics.



Collaborating with Parametric Technology Corporation (PTC), GTTC has also established 7 CoEs for emerging technologies including reverse engineering, automation, virtual reality and IoT.



With Dassault Systèmes, GTTC has set up 4 CoEs, each of which is equipped with the necessary hardware and Dassault software to provide hands-on training to acquire industry-relevant skillset in automotive, mining and tooling development domains.



# Karnataka Skill Development Corporation



Set up in 2008, the Karnataka Skill Development Corporation (KSDC), under the aegis of the Skill Development, Entrepreneurship and Livelihood (SDEL) Department, Government of Karnataka, provides short-term vocational training to more than 60,000 candidates annually under the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and the state's flagship scheme for skill development - the Chief Minister's Kaushalya Karnataka Yojane (CMKKY).

Through its network of more than 800 accredited training centres spread across the state, KSDC provides skill training in more than 200 job roles from multiple sectors including automotive, IT&ITeS, logistics, BFSI, apparel, and electronics, to name a few.

Additionally, KSDC designs and implements special initiatives for skill development and entrepreneurship across Karnataka. KSDC also supports and monitors implementation of these programmes at the district level through the District Skill Development Offices in each district of Karnataka.

## Special Initiatives Karnataka Skill Connect Portal (KSCP)

The Karnataka Skill Connect Portal is a one-of-its-kind platform to bring together job seekers, employers, skill aspirants, academic institutions, and training partners. Inspired by the 'Jobs for All' vision of the Government of Karnataka, the portal is built to map the aspirations and skill gaps of the candidates, provide access to paid and free skill courses based on individual analysis, connect aspirants to mentors and employers in the desired sectors, and chart out career pathways for professional advancement and growth.

Designed with bilingual functionality, KSCP is powered by artificial intelligence and machine learning to meet the individual needs of the candidates.

## International Migration Centre – Karnataka

Through IMC-K, KSDC connects aspirants with overseas employers and facilitates their safe emigration. IMC-K liaises with foreign governments and institutions to identify job opportunities abroad and train candidates from Karnataka accordingly at training centres aligned to international standards in training and assessment.

IMC-K is the only pre-departure orientation training centre in Karnataka authorized by the Ministry of External Affairs (MEA), Government of India. Through this training, candidates learn about the culture, language and regulations of their destination countries and the welfare measures by the Indian Government for their safety and security.

Over 500 emigrants from Karnataka have benefitted from this initiative, having secured employment in the UK, UAE, Romania, Japan and Kuwait, among others.

## Language Labs

State-of-the-art IT-enabled audio-visual studios have been set up to create five language labs in the state to augment the communication and language skills of youth. Over 700 trainees have benefitted from this initiative so far.

## Industry Linkage Cell



Recognizing the essential need for an industry-driven skilling ecosystem to align vocational training with the dynamism of the job market, KSDC has rolled out the Industry Linkage Cell (ILC).

ILC provides a green channel to fast-track the empanelment of industries as accredited training partners under the Chief Minister's Kaushalya Karnataka Yojane (CMKKY). Through this initiative, the industries double up as training centres and facilitate captive placement of the trainees within the organization or the concerned sector.

The active participation of industries helps KSDC in discerning the current and future workforce requirements of the industries for designing and implementing demand-driven skill development programmes in emerging sectors in Karnataka.

## Some of KSDC's Accredited Partners



## Karnataka Champions Secure Medals at World Skills

The skill champions supported by KSDC have performed spectacularly in this year's World Skills competitions. Ms Nandita Saxena bagged the silver medal in Patisserie and Confectionary, Mr Likith Y P secured the bronze medal in Prototype Modelling, Mr Karthik Gowda and Mr Akhilesh Narasimhamurthy won the bronze medals in Mechatronics, and Mr Steven Harris and Mr Prathem Sharma have secured medallions of excellence in Graphic Design Technology and Bakery respectively.

## One District One Skill

An initiative for promoting and preserving the native skills of Karnataka through interventions for upskilling, design upgradation, and market linkage to products of 100 artisans from each district.

## E-Kaushalya

KSDC has launched the E-Kaushalya Learning Management System as an online platform for skill aspirants to access over 30 free online courses in future skills such as AI, Blockchain, Cloud Computing, IoT, EV, VLSI and other top in-demand skills in the IT sector. Interested candidates can visit <http://e-kaushalya.kaushalkar.com/> to access quality training at their fingertips.


## Skilling For Prison Inmates

KSDC has collaborated with the Department of Prisons and Correctional Services, Government of Karnataka, to provide skilling to inmates of the 8 central prisons across Karnataka to engage them in activities that can earn them income at the prison and also aid in their rehabilitation after their release.

## Skill on Wheels / Kaushalya Ratha

Well-equipped buses with the requisite infrastructure, employing expert trainers have been deployed to rural pockets to enhance access to skilling for the rural youth in the state.



 [www.kaushalkar.com](http://www.kaushalkar.com)  [skill\\_karnataka](https://www.instagram.com/skill_karnataka)  [www.linkedin.com/company/skill-karnataka](https://www.linkedin.com/company/skill-karnataka)

 [https://bit.ly/Skill\\_Karnataka](https://bit.ly/Skill_Karnataka)  [KarnatakaSkillDevelopmentCorporation](https://www.facebook.com/KarnatakaSkillDevelopmentCorporation)  [Skill\\_Karnataka](https://twitter.com/Skill_Karnataka)

# Transforming govt schools to make students competitive: Andhra Pradesh Education Minister Botsa Satyanarayana

*As part of its ongoing efforts, the Government of Andhra Pradesh has supplied the energized textbooks with QR code which represents the e-content.*

T. RADHAKRISHNA



In the last three fiscal years, the Andhra Pradesh government has spent over Rs 52,000 crore under various initiatives for upgrading the infrastructure in schools and improving learning outcomes. All these dedicated efforts are intended to bring in a radical transformation of school education with a long-time objective of transforming the students of Andhra Pradesh into global

citizens with bright futures, **Botsa Satyanarayana**, Minister for Education, Government of Andhra Pradesh told **ETGovernment** in an interview.

## **Edited Excerpts:**

### **The NEP 2020 is two years old now. What is the status of the implementation of the NEP in Andhra Pradesh?**

The NEP 2020 came up with recommendations for both school and higher education. Regarding school education, the state government has already put in several efforts to bring in a radical transformation of school education and several activities have already been taken up in line with the recommendations of NEP 2020.

Early childhood care and education are addressed by introducing PP1, and PP2 in all Anganwadi Centres and developing a curriculum on the guidelines issued by the NCERT. Foundational Literacy and Numeracy are being ensured by the reorganization of schools into six categories -- i) Satellite Foundational Schools (PP1, PP2), ii) Foundational Schools (PP1, PP2, Classes 1-2), iii) Foundational Plus (PP1, PP2, Classes 1-5), iv) Pre-High School (Classes 3-7/8), v) High Schools (Classes 3-10) and vi) High School Plus (Classes 3-12) based on a 5+3+3+4 structure duly ensuring appropriate Teacher Pupil Ratio, bilingual textbooks, workbooks and teacher training. Curriculum and pedagogy are refined with 21st-century skills.

**During the COVID-19 pandemic, state governments have**

**adopted innovative methods to ensure continuity in education.**

### **What has been the experience of Andhra Pradesh in this regard?**

Due to the pandemic, there is a huge learning loss reported globally and surveys such as ASER and NAS validated the same. The government has supported the 10th-class students through video lessons, and Doordarshan TV and radio lessons through All India Radio. Even though online classes are conducted, there is difficulty among students in attending virtual classes due to the non-availability of digital devices and networks. Based on this experience, the state government is taking steps to introduce digital learning in schools. Access to digital apps like Byju's, Tabs, and Digital Classrooms is taken up.

### **Technology adoption is transforming the public education system. According to you, which are the new models, you have adopted?**

The state's motto is to transform education in government schools to make students globally competitive. To address the learning gap, and to ensure appropriate class-specific learning outcomes among students, blended learning is proposed.

### **How are you pursuing technology adoption?**

The state has supplied the energized textbooks with a QR code which represents the e-content, teachers and students are utilizing the e-content through the DIKSHA platform. Smart TV was provided to 10,961 Foundational Schools and the government entered an MoU with Byju's for their online content free of cost. Smart TV is proposed to all the remaining Foundational Schools. Personalised Adaptive Learning for students is planned to address the learning diversity, speed and style of individual students. Interactive Flat Panels with digital content are also proposed in High Schools.

### **What are your priorities for the 2022-23 FY?**

Our top priorities are providing the best quality education to students, ensuring adequate infrastructure in schools, teacher capacity building, nutritious food to students and continuous academic monitoring through child tracking. ■

# We have integrated technology with higher education: Dr CN Ashwath Narayan

*Karnataka has taken several initiatives in education, like steps to establish at least one university in every district or near it to increase higher education access.*

## T. RADHAKRISHNA



**Dr CN Ashwath Narayan**, minister for higher education and skill development and entrepreneurship, Government of Karnataka told **ETGovernment** in an interview.

### *Edited Excerpts:*

**Karnataka is the first state in India to implement the NEP 2020. Which administrative measures have you implemented in the Departments of Higher Education and Skill Development? What are your expected outcomes?**

We implemented NEP 2020 in Karnataka, which is a matter of considerable pride for us. I have always believed that NEP is a step towards expanding the economy, particularly because of the improvement and strengthening of institutions the new education policy can bring. Before the NEP report was accepted by the Government of India on July 29, 2020, the Karnataka government constituted a Task Force in March 2020 to suggest an Implementation Framework for NEP-2020. The state had also constituted three sub-committees in this regard.

The Task Force and the Sub-Committees submitted their reports in November 2020 and developed a roadmap for implementation concerning Curricular reforms, Legislative action Structural Transformation and Administrative Changes. This Roadmap has formed the basis for the planned implementation of NEP in the State. The state has accepted the action plan and taken steps to implement it comprehensively. This meticulous approach has helped us in implementing the policy diligently. Expected outcomes, as a result, are visible for all in academic reforms, model curricula, skill

courses through collaborations, technological interventions, and so on. We are certain that a successful NEP implementation will open up newer opportunities while simultaneously promoting R&D in the state and the country.

**Bengaluru, a global city for IT, Biotech, and Innovation because of talent, is reinventing itself as Unicorn City, Semiconductor, and Defence Tech Hub. Do you think there is a need for a well-planned strategy for further growth?**

Bengaluru has always been a pioneer in IT, BT, Science & Technology. However, our state has a comprehensive technology ecosystem built in. For instance, there are around 400 R&D centres in Karnataka, with the majority in Bengaluru. 39 of the 100 Unicorns are from the State, and 55 per cent of IoT start-ups are here. Also worth bearing is the fact that Bengaluru commands the lion's share of India's private equity/venture capital funding, having received US\$ 30.7 billion from FY19-21. As could be expected, Bengaluru also has about 24 Tech Parks, housing over 67,000 registered IT companies.

The city has become the ideal place for innovation, entrepreneurship, and quality talent. Let us not forget that a rapidly growing city is like a moving target. Our government is making constant efforts to make the city better. It is integral to us, and we are certain that we will achieve newer heights as we learn more from our experiences.

**Atma Nirbharta is sweeping the country. Can Karnataka become a role model for imparting quality education? Your views on this!**

Karnataka has been a role model in the education sector, being the first State to implement the NEP 2020 last year. Our emphasis is on providing access, ensuring equity, and bringing about inclusion in higher education.

We have taken several initiatives in education, like steps to establish at least one university in every district or near it to increase higher education access. In the coming years, we would like to ensure that no student applying to any government college will be denied admission at the UG level.

We have passed the bill to elevate the University of Visvesvaraya into an independent university. ■

# Disruptions in higher education; what needs to be done in the knowledge domain?

*After the COVID pandemic, there was a surge in online education. Even the UGC gave permission for 40 per cent of the course through online mode in the regular programmes. Complete online programmes were also approved for universities with the highest NAAC ratings*

## T. RADHAKRISHNA



In a candid interview with ETGovernment, Pankaj Mittal, Secretary-General of the Association of Indian Universities (AIU), talks about disruptions by COVID-19 in the higher education sector, post-COVID-trends, alignment of the government's proposed Digital University with the higher education sector and corrective measures required for reforms in the knowledge domain.

### Edited Excerpts:

#### What are the major disruptions by COVID-19 in the higher education sector in India?

Disruptions are many. Following are some of the disruptions.

**Technology-mediated Learning:** Lockdown due to COVID-19 has changed the popular old chalk-and-talk offline teaching model to technology-mediated learning. Higher Education Institutes (HEIs) are now collaborating with online platforms to improve interaction while teaching and learning. Face-to-face learning suffered a major setback but it got converted into an opportunity when most of our HEIs adopted blended learning.

**Assessment and Evaluation:** COVID-19 pushed HEIs to conduct exams online. Assignments were submitted through emails and tests were conducted online. Assessment processes requiring physical presence such as GD and PI were not feasible. Teachers were facing a lot of difficulties in downloading and printing lengthy answer sheets because of the unavailability of printers at home or slow internet connection. So, lack of access to technical infrastructure adversely affects assessment and evaluation. At the same time, it led to innovations in technology-based assessment and evaluation.

**Cancellation of Entrance test:** Sudden lockdown resulted in the cancellation of various national, state and institutional level examinations which impacted the students who were preparing for years. Indian students who wanted to go abroad or foreign students

who wanted to come to India for higher studies had to defer their place.

**Impact on campus placement:** Coronavirus pandemic negatively impacted campus placement. Many students either did not get their offer letters or they are deferred after being hired. Lockdown created a situation of economic stagnation and employers were unable to respond in time about the employment of newly hired students through campus placement.

**Rising Digital Divide as social injustice:** Coronavirus made colleges abruptly shift from offline to online learning due to which the digital divide raised its ugly head as a social evil. The digital divide arose due to inadequate access to technical gadgets and infrastructure. This widened the gap between students from different socioeconomic backgrounds.

**Impact on non-teaching staff:** Non-teaching staff act as a backbone of the higher education sector which ensures smooth functioning of it but very few researchers talk about them. To decrease the financial loss, higher educational institutes reduced their numbers. Non-teaching staff or administrative staff also faced a salary cut, temporary loss of a job or permanent shift to other jobs.

**Government's Initiatives:** Keeping in view the impact of COVID-19 on the Indian education sector, the government initiated various programmes for online teaching and learning like VidyaDaan, PM eVidya etc.

**Increase in Digital Literacy:** COVID-19 lockdown compelled higher education institutes to close down their premises and shifted them to digital education hubs. The only way to continue teaching-learning was by digital means. For that purpose teachers had to acquaint themselves with digital literacy skills. Thus the Covid-19 pandemic enhanced digital knowledge and in uplifting IT skills that transformed educators and students into a tech-savvy world.

#### What are post-COVID trends in higher education?

**Blended learning:** BL would be the lifeline in the post covid era as it allows personal interaction with the teachers along with the benefits



of digital media. COVID-19 forced teachers to learn the use of technology and digital means to impart knowledge and teachers will continue using digital technologies in classroom learning. BL shall be the new normal in the education sector.

**Flexi-time learning:** HEIs can use Flexi timings to maintain social distancing with a smaller number of students at a time.

**Technology-based personalized learning:** One of the opportunities to focus amidst the crisis is using technology to improve the content quality used for learning. New technologies including artificial intelligence and cloud computing can help to create customized learning plans and methods. Highly personalized learning material can be designed with the help of Artificial Intelligence as it can assist in the completion of tasks like assessment and feedback. Cloud computing allows the persistent sharing of knowledge by storing it in clouds which results in more effective teaching and a more simplified learning experience for students. Adoption of mobile devices, apps, VR and AR for learning will also increase as it allows engagement in classrooms with audio, motion and vision sensors. Higher education institutions must embrace these technologies quickly to overcome the negative aspects of current digital higher education.

**Switch to Edtech platforms:** Edtech platforms have the potential to transform the traditional graduation and post-graduation culture of colleges and universities. According to IBEF research, In 2016, the online education market aggregated US\$ 247 million with 1.57 million paid users and it was expected to expand at a 52 per cent CAGR to reach US\$ 1.96 billion in 2021. The growth of edtech platforms will move upwards in the covid era as more and more students will start adopting them as they can access high-quality content through these platforms.

**Inclusion of well-being in the curriculum:** New curriculum must be designed in a way that elevates the physical, cognitive, emotional and social well-being of students. Environmental and health courses must be included in order to make the curriculum of higher education at par with the needs of the present and upcoming situation because mental health issues are a rising concern, especially since the pandemic.

**Virtual Internship Programmes:** Internships to companies are as important as they are to students because internship programmes act as a key channel into the company's talent pipeline. Internships allow students to go beyond their curriculum and learn about the practicality of their professions.

Most college students could not attend internships physically during COVID-19 as it was difficult for students to move across the country for internship programmes, but cancelling the internship programs could create a negative impact on the professional development of students. So, employers shifted to virtual internship programmes for the first time. Some organizations adopted a blended approach of virtual and physical internships. This trend of a virtual internship is likely to be continued in post covid times.

**Low international mobility:** Indian students who want to go abroad or foreign students who want to come to India for higher studies may feel reluctant to go abroad after covid pandemic situation which leads to the low international mobility of students.

**In which areas do you see major reforms or corrections?**

## **Face-to-face learning suffered a major setback but it got converted into an opportunity when most of our HEIs adopted blended learning.**

The following areas would require major reforms post-COVID-19.

**Bridging Digital Divide:** During the COVID, a number of institutions faced problems due to a lack of devices, internet facilities and required bandwidth. India is a large and diverse country the digital divide is more. It is important that investment is made both by the Government and private sector for bridging this digital divide.

**Training of Faculty Members:** There is a need to train the faculty on the use of technology for teaching learning, blended learning and e-content creation, assessment and evaluation, tracking the performance of students etc. The training is also required to equip the teachers with the required skills. The AIU has recently opened 10 Academic and Administrative Development Centres where specific training would be provided to the teachers for use of technology in various spheres of teaching, research and examination.

**International Collaborations:** International collaborations saw a setback during the COVID pandemic. However, we soon realised that digitizing international collaborations can be more cost-effective and time effective. Universities need to make efforts to digitise international collaborations.

**Internship for students:** NEP 2020 talks about the "hands-on" experience the students and recommends internships for all the programmes. These internships can be physical as well as online mode. The universities need to make an Internship Bank to provide internship opportunities to all students.

**Cyber Security:** With the excessive use of technology the threats of cyber attack increase. It is important that all the faculty members as well as administrative staff are trained in cyber security to avert these threats.

### **How do you see the alignment of the Government's proposed Digital University with the higher education system in India?**

After the COVID pandemic, there was a surge in online education. Even the UGC gave permission for 40 per cent of the course through online mode in the regular programmes. Complete online programmes were also approved for universities with the highest NAAC ratings. The concept of the Academic Bank of Credits also gained momentum wherein the students could earn and deposit credits in the Bank to be used later for redemption into a degree.

To further promote online education, the concept of Digital University is laudable as it will help in promoting quality education while giving freedom and autonomy to the students to learn anytime, anywhere and in any mode. The idea of Digital Universities was developed for students to get immediate feedback from teachers through email or online discussions. When this term came into existence, it was applied to things that were simulated by the computer like virtual memory. Now, this is being applied to things that are physically available and are created with the help of computers. ■

# With AI-based RK SMBK app, Rajasthan gives Tech Touch to its Government Schools

*"We have created the Rajasthan Ke Shiksha Me Badhte Kadam (RK SMBK) app for teachers and we have kept it very simple so that teachers can easily use it as their teaching companion," says the official.*

## KARTIK SHARMA



This is probably the world's largest use of Artificial Intelligence in the field of education by the Government of Rajasthan, Gaurav Agarwal, Director, Secondary Education, Government of Rajasthan told ET Government in an interview.

*Edited Excerpts:*

### How will AI be used in the government schools of Rajasthan?

This year, in government schools in Rajasthan, children (about 50 lakh in 65,000 schools) studying from classes 3-8 will first be taken a competency-based examination in English, Hindi and Mathematics, and then their copies will be checked through AI. Their competency report cards will be prepared.

Competency-based exams of children will be taken three times in a year -- about 1.5 crore answer sheets in each exam and about four crore answer sheets will be checked with AI in the whole year. The special thing is that questions of behind grade competence will also be asked in these exams (questions of class 3-4 will also be asked in the class 5 exam) so that it can be known how far the child is behind his class level. After the exam, the teacher will not have to do any data entry, just take a photo of the answer sheet and upload it on the RK SMBK app.

After uploading the picture, the answer sheet will be automatically checked with the help of AI. After copy-checking, children will be given such competency-based report cards in parent-teacher meetings. Also, on the basis of these results, to improve further classroom teaching, teachers will get such views inside the app so that they can plan their further teaching.

### Why is the government using AI in government schools?

Our aim is to bring each child up to the learning level of his/her class. One of the major reasons why this is not possible in our schools today is that they equate each child's learning ability and learning level. The child sitting in our class is taught the same thing at the same speed,

whether he is a slow learner or a fast learner or even if he is far behind the learning level of his class.

We understand that each child's needs and learning level are different, so first divided the class into two groups based on the learning level of the children and instead of teaching everyone the same thing, did competency-based teaching according to the learning level of the groups.

Now, to know which child is where their examination is being taken. Until now, the class teachers have been preparing the papers for these exams in Rajasthan. Means 65,000 papers of class 5 maths in 65,000 schools. And then those teachers themselves have been giving marks to the children after checking the answer sheets. But its disadvantage is that there is no uniform standard that a child knows how much. In between, learning outcome surveys are conducted, but on the basis of them, apart from some training, nothing else can be done, so that classroom teaching can really become better.

That is why there was a need to make expert competency-based question papers of today's modern education thinking. And then their common checking can be done. This would not have been possible without AI. We could also use the old technique of OMR which is used in CAT paper but it is very expensive and secondly, small children cannot fill the whole circle. That's why we used state-of-the-art AI technology.

### What is being done to ensure the implementation of this programme?

We have created the RK SMBK app for the implementation of this programme. This app is for teachers and we have kept it very simple so that teachers can easily use it as their teaching companion. The only purpose of this app is that teachers can open it every morning and see what they have to do in the classroom for the successful implementation of the programme today. After AI-based results, this will be the first time that we will be able to use the data of learning levels and nudge the teachers through the app that the children in their class are struggling in this competency or these children are a little weak in this competency and pay special attention to them. ■

# National Digital University to impart education in multiple languages: UGC chairman Prof. M Jagadesh Kumar

*The National Digital University, India's ambitious digital initiative, is set to be launched in July 2023.*

T. RADHAKRISHNA



**N**ational Digital University, India's one of the ambitious digital initiatives, will be launched in July 2023 to steer education and skill enhancement in the Amrit Kaal, University Grants Commission chairman M Jagadesh Kumar tells ETGovernment in an exclusive interview.

Talking about the role and future roadmap of online education, Kumar said, imparting quality education and promoting online learning in multiple Indian languages are some objectives of the National Digital University (NDU). In addition, new TV channels "approximately 100" dedicated to education will also go live in the new year, increasing the number of education channels to 225.

Kumar stressed that this will be part of the 'One Class One TV Channel' initiative under the PM e-Vidya scheme. The NDU and the expanded education TV network will complement each other to enhance the nation's digital education footprint using the robust technology infrastructure.

**Digital University:** The Centre in its Budget 2022-2023 announced the establishment of a Digital University that will provide access to students for world-class quality universal education with personalised learning experiences at their doorsteps. This will be made available in different Indian languages and digital formats. The University will be built on a networked hub-spoke model, with the hub building cutting-edge ICT expertise. The best public universities and institutions in the country will collaborate as a network of hub spokes.

On the institutional framework, the official said the NDU will function like any central university and it will have its own governing body and administration structure. The UGC will monitor the functions of the NDU.

"The backend of the NDU's core system is ready with the support of edutech platforms such as DIKSHA and SWAYAM. These platforms are also being integrated with school, higher education and skill development," Kumar said. Since the NDU will be built on a networked hub-spoke model, it can develop cutting-edge ICT platforms and digital content, using emerging technologies such as AI, ML, VR/AR and blockchain. The NDU can integrate the existing capabilities such as SWAYAM, SWAYAM-Prabha, ePG-Pathshala, eGyanKosh, National Digital Library, and Virtual Labs into one organic entity.

**Key Stakeholders:** The Department of Higher Education under the Ministry of Education, its autonomous bodies University Grants Commission (UGC), All India Council for Technical Education (AICTE), and Bharat Broadband Network Ltd (BBNL), part of the Department of Telecommunications (DoT) are some of the key stakeholders of the NDU. To ensure last-mile connectivity in rural areas, the BharatNet project is being implemented by BBNL. This project provides connectivity mainly through optical fibre cable (OFC) to the Gram Panchayats (GPs) in the country.

**Pilot Courses:** There is a strategy to initially launch an increasing number of skill development-based courses. The main focus is to give students skill-based training, and the courses should be job-oriented. All IITs, NITs, IIMs, IIITs and Central Universities will be connected with the NDU and their studies will be introduced in a phased manner.

**Technology Partner:** The UGC has already collaborated with the Ministry of Electronics and Information Technology (MeitY) to ensure that students from the remotest areas can have access to online education facilities. In addition, teaching-learning e-content will continue to be developed in all regional languages by the NCERT, CIET, CBSE, NIOS, and other bodies/institutions, and will be uploaded onto the DIKSHA platform.

**Business Model:** Jagadesh Kumar added that the primary business model of the NDU is the admission of students for various courses it offers. ■



## *Incubation parks in HEIs and the spirit of Start-up India*

*In the year 2021 alone India had created 33 Unicorns and became No 3 globally (after USA and China); in 2022 another 20+ Unicorns have been added already!*

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**PROF. S. SADAGOPAN**

Supporting start-ups is not entirely new in India's Higher Education Institutes (HEI). Ahmedabad-based Entrepreneurship Development Institute of India (EDI) was set up way back in 1983. In the '80s, there was a course on entrepreneurship at IIT-Kanpur. However, the ecosystem was just not ready. A secure job in a government department or a high-paying job in an MNC was viewed highly. Society at large did not easily accept 'fail-

ure'. Banks would bet on a piece of even arid land, but not a brilliant idea. There was no venture capital; a risk-taking route of entrepreneurship was just not 'cool'.

The decade of the 1990s changed all that. The IT outsourcing industry brought Silicon Valley much closer to India. The early success of HCL in hardware and Infosys and Wipro in software offered new

hopes. 'Sharing of wealth' through ESOPs and electronic trading through NSE offered new options for capital. PCs, mobile networks and the Internet bridged the last mile for India. Venture funds regulations were in place. The Government of India announced a National Venture Fund, which was followed up with a much larger 'Fund of funds'.

Organizations like National Entrepreneurship Network (NEN) spread the spirit of entrepreneurship across hundreds of campuses, sensitized hundreds of teachers, and touched lakhs of students. Hackathons – initiated by tech companies, and industry apex bodies (CII, FICCI, NASSCOM, etc.,) became regular events across the length and breadth of the country. The Indus Entrepreneurs (TiE) played a particularly important role with celebrity entrepreneurs turned venture capitalists like Kanwal Rekhi and Nandan Nilekani helped in creating the complete ecosystem.

Entrepreneurship education, start-up clubs, venture capital, pitch events, early-stage funding, series A, series B funding, etc and the entire cycle was complete by the year 2010.

#### **Two notable success stories**

They are the Tech Park of IIT-Madras and NS Raghavan Center of IIM-Bangalore and they have become shining examples of start-up activities in higher education institutes (HEIs).

Against this backdrop, the Government of India created a series of Innovation and Incubation Centres in the last decade under multiple ministries, the Ministry of IT and Electronics, and the Ministry of Science & Technology, in the form of Section 8 Companies (Not-for-profit) within Academic Institutes. This had multiple schemes, Technology Incubation Centres, bio-incubators and interdisciplinary cyber-physical systems.

The spread was wide too. Centres were set up in most IITs, IIMs, IISc, NITs, and IIITs. Interestingly, the last decade also saw a spectacular increase in the number of higher education institutes (HEI) – IITs, IIMs, NITs, and IIITs and many centres were set up in private institutions too.

This structure paved the way for corporatization within the overall structure of many government institutes, particularly from the Income Tax angle. This has been a huge success. There was a way to get access to significant funding – tens of lakhs of rupees and sharing of wealth with the student entrepreneurs. Another set of policy measures included preferential buying by governments; scientific ministries like Bio-Tech and Space created exciting programmes.

Success stories like Flipkart and Zomato from IIT-Delhi, Ather Energy, Urban Ladder, and Agnikul Cosmos from IIT-Madras have raised the bar significantly. Some of them like Flipkart are Unicorns (with a market capitalization exceeding one billion dollars). Some others like Agnikul are deep-tech in areas like Space vehicles or 3-D printing. BotLab Dynamics created a fantastic Drone Show involving 1,000 drones during Republic Day Celebrations 2022 (and invited by other countries).

#### **Startup India**

The Start-up India Scheme announced by Prime Minister Narendra Modi in 2015 gave further impetus to start-up culture in higher education institutes (HEIs). Being part of the Independence Day speech

***In the year 2021 alone India had created 33 Unicorns and became No 3 globally (after USA and China); in 2022 another 20+ Unicorns have been added already! Interestingly, Unicorns in India have widely spread across. They include e-Com (FlipKart), EduTech (upGrad), Analytics (Fractal), FinTech (Neobank Open), Gaming (Games 24x7) and Sustainability (Mamaearth).***

from the Prime Minister, start-up culture got into the Center-stage of the country. It was soon followed by most state governments. By focusing on simplification and hand-holding, funding support, and incentives.

The scheme addressed the start-up issues holistically and comprehensively. The efforts are paying off. India saw a record (global record of sorts) of being home to 100+ Unicorns!

In the year 2021 alone India had created 33 Unicorns and became No 3 globally (after USA and China); in 2022 another 20+ Unicorns have been added already! Interestingly, Unicorns in India have widely spread across. They include e-Com (FlipKart), EduTech (upGrad), Analytics (Fractal), FinTech (Neobank Open), Gaming (Games 24x7) and Sustainability (Mamaearth). In a sense, the start-up spirit has become part of campus culture in Indian higher education institutes and is fully aligned with national policy. Something that is truly satisfying.



#### **PROF. S. SADAGOPAN**

(The author is chairman, BoG, IIITDM-Kancheepuram and founder director, IIIT-Bangalore. Views are personal.)



# *Attracting international students to India – Making the Mission possible!*

*In the year 2021 alone India had created 33 Unicorns and became No 3 globally (after USA and China); in 2022 another 20+ Unicorns have been added already!*

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## PROF. GUNJAN M. SANJEEV

**T**he National Education Policy 2020 has elucidated the agenda of internationalization of higher education very clearly. There is a clear emphasis on promoting India as a global study destination by attracting international students from across the world and achieving the goal of Internationalization at home.

There is no debate that there should be more and more international students in the country. The main agenda should now be – How? How to augment the slowly elevating numbers? Let’s recollect that the ‘Study in India’ initiative launched by the Government of India in April 2018 is a beautifully designed path-breaking programme to attract 200,000 international students to Indian universities by 2023.

A welcome move by UGC as announced on September 30, 2022, has been that Higher Education Institutions (HEIs) may create super-numerary seats for international students, over and above their total sanctioned enrolment. The next step is to see how this can be executed efficiently by attracting international students so that all seats are suitably filled up.

As per the latest reported data by AISHE 2019-20, an annual survey conducted by the Ministry of Education, Government of India,

the total number of foreign enrollments is 49,348 a little higher than 47,427 and 46,144 for the years 2018-19 and 2017-18 respectively. It is important to identify those large steps that must be executed to leapfrog to the next level - the level of a colossal goal.

### **Identifying the specific needs of students from each country**

Foreign students come to India from 168 different countries across the globe. The top 10 countries comprise 63.9% of the total foreign students enrolled. These are Nepal (28.1%), Afghanistan (9.1%), Bangladesh (4.6%), Bhutan (3.8%) and Sudan (3.6%). These are followed by the United States of America (3.3%), Nigeria (3.1%), Yemen (2.9%), Malaysia (2.7%) and UAE (2.7%). The AISHE report does a brilliant task of putting the massive data together. It presents the country-wise number of international students and the programme-wise data for foreign students that give us some excellent trends.

However, if we can go a little deeper to understand the country-wise needs, we can do focused efforts to design not only the programmes but also do focused outreach efforts in respective countries. It is quite an acceptable belief that as the Indian higher education system commands a high reputation in certain regions across the globe, we find several students from South Asian and African regions gravitate to

India for their higher education spanning a wide array of disciplines.

Do you observe anything interesting in the above list of countries? I do. Right in the top 10, we have the USA, a country that leads higher education on several fronts across the globe. A popular belief is that the flow of student mobility to this magnificent country is generally outward and not many American students would want to come eastward to pursue their higher education. However, the USA figures at the 6th position out of 168 in terms of inward mobility in India. Therefore, it would be interesting to know what programmes the American students are coming to India for. Similarly, Canada and UK, the other two major countries, have a presence in India with 1.38% and 0.35% respectively. Therefore, let's not underestimate the power of these small percentages. These numbers could open huge opportunities for the Indian higher education sector.

Further, it is suggested to notice the non-credit courses that students are coming to India for. The Open Doors Report 2021 clearly states that 252 institutions in the US reported that 11,256 students travelled abroad in the year 2019-20 for non-credit experiential activities. Such data, if captured and subsequently analyzed well, can give us enormously meaningful insights. These are not only indicators of assessing interest for foreign students in India, but these interest areas can be harnessed further to create innovative credit programmes to suit everyone's diverse interests and needs.

Therefore, data on both credit courses and non-credit courses being pursued by foreign students in India should be accounted for and country-wise preferences should be carefully analyzed. This will result in not only creating focused programmes to suit the country-specific needs but also allowing the educators to adopt focused marketing and outreach efforts in respective countries.

Broadening the scope of the Study in India initiative from 'scholarship' to 'all-embracing and showcasing' Currently, the Study in India scheme strictly partners with higher education institutions which are eligible as per the following norms: NIRF Top 100 in any category except medical or NAAC grading of >=3.26.

Here, I would like to emphasize that for a country like India where we have several hundreds of universities, we need to have a higher representation of Indian universities participating in internationalization initiatives. The AISHE 2019-20 states that there are 1,043 universities operating in India. The top 100 merely comprise 10% of the total. While the current 'Study in India' initiative focuses on full or partial scholarship offerings by the Govt of India only to a top few Indian universities, it is suggested that this initiative should be extended to more Universities as per the well-defined criteria. For example, The USA News included 1,452 schools in the 2021 rankings, though the US Department of Education tallies nearly 4,000 colleges and universities which accounts for around 36% of the total. To be eligible for inclusion in the Best Colleges rankings, the criteria is that a school must be regionally accredited and offer four-year undergraduate degree programs. Colleges that offer only associate degrees are not ranked, nor are schools with fewer than 200 students.

It is not just scholarships that foreign students are looking at in India. Thousands of them may be willing to come without scholarships as well just to experience higher education in India. Therefore, expanding the number of ranked institutions in NIRF will give a wider choice to the global student fraternity through higher visibility, cred-

ibility, and transparency in the Indian higher education system. If executed well, more and more Indian universities and institutions will be visible and foreign students can freely make their choices – which could be based on location, discipline, safety or even infrastructure. Scholars are most welcome for sure. But the sentiment needs to be extended to - all are welcome!

### **Collaboration with universities in target countries for the Study in India initiative**

The NEP 2020 envisages global institutions to be promoted through special efforts, research collaboration and student exchanges between Indian institutions. The UGC (Academic Collaboration between Indian and Foreign Higher Educational Institutions to offer Twinning, Joint Degree, and Dual Degree Programmes) Regulations, 2022 clearly brings forth various arrangements between Indian institutions and foreign institutions for academic collaboration. These are great opportunities for students at Indian universities to get global exposure at the premier universities worldwide. This mechanism promotes outward mobility for students studying in India.

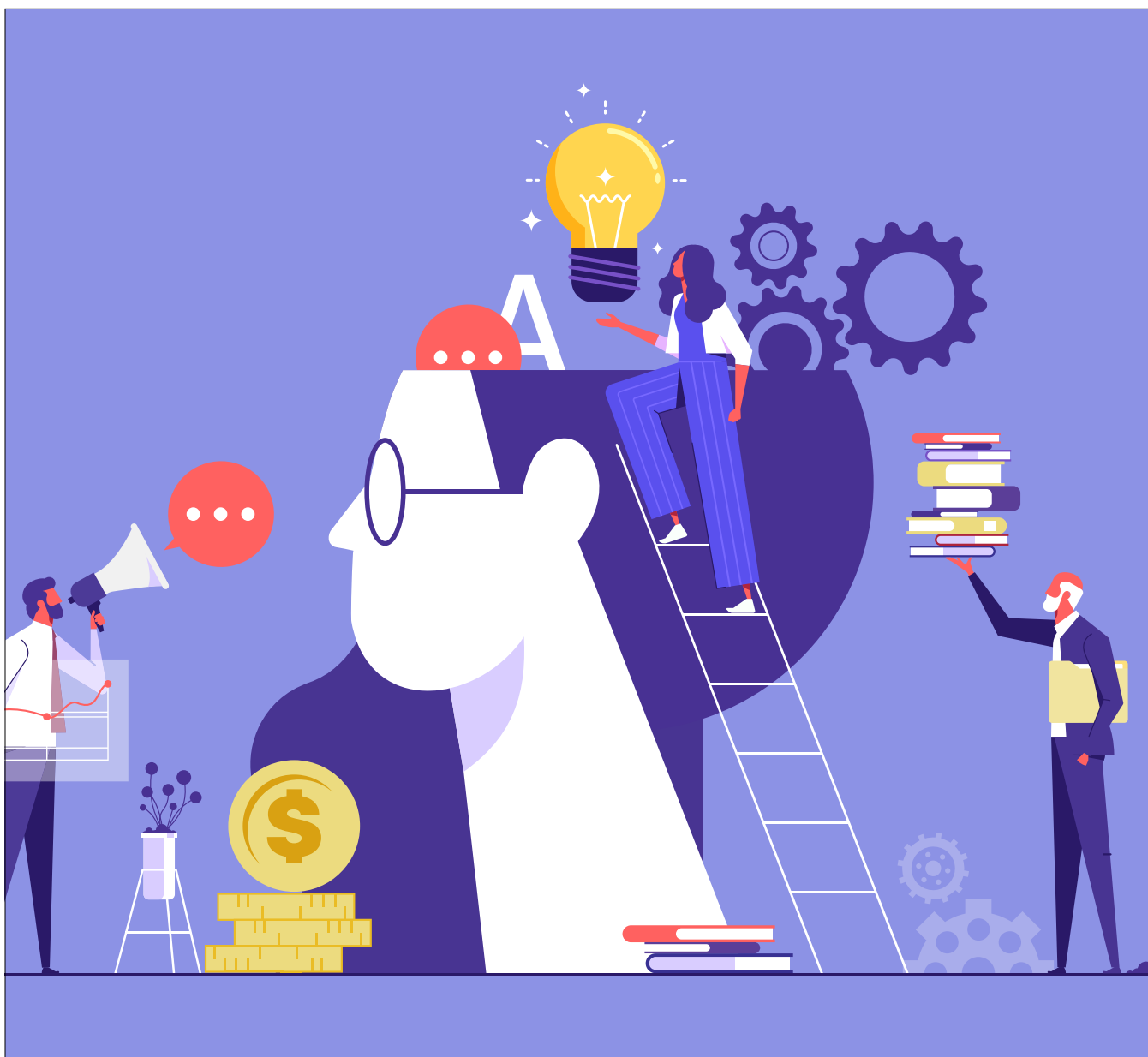
Similar initiatives should be targeted for the inward mobility of foreign students as well. Indian institutions should be encouraged to sign articulation arrangements with institutions in target countries for SI where students could do part of their program in their home institutions and then take transfer to Indian institutions to complete their program. Thus, this route will be very helpful as this is institutionalized and the international students will get all the required support for smooth entry into India as they will be guided by members from both institutions. Collaborations with target SI countries could be a gateway to a goldmine. And the real wealth is the diversity that these young minds will bring to the learning environment in the country. The diversity of culture, ideas and some best practices they have experienced in their respective countries!

Some final thoughts. Understanding foreign students' needs in terms of disciplines, showcasing the Indian higher institutions with transparency and credibility and institutionalized efforts towards smooth entry into India will go a long way. Execute it as a package and then the numbers will not be just 200,000, they can be way higher. Not only will the presence of foreign students add to a great diverse learning environment in the Indian institutions, but it will also enhance the global rankings of our institutions as the number of international students is an important parameter in most rankings today. Moreover, the Indian higher education industry can take immense pride in contributing some valuable numbers positively to the GDP of the country. Some right efforts can certainly make the MISSION POSSIBLE!



**PROF. GUNJAN M. SANJEEV**

*(The author is Vice President-RBEF of Amity Education Group and Director of International Affairs. Views are personal.)*



## *Bridging the skills gap in the future workforce*

*The Skill India Mission has built solid bridges between India's youth and skill enhancement by creating strong synergies for training youngsters and preparing them for the world of work.*

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**ARUNESH KUMAR**

**S**kill enhancement needs to align with emerging technologies such as Artificial Intelligence, Machine Learning, Blockchain, and Advanced Biosciences, among others, to build a future-ready workforce.

The Skill India Mission has built solid bridges between India's youth and skill development by creating strong synergies for training youngsters and preparing them for the world of work. This has helped develop the supply of skilled people, who can shoulder the demands



of the volatile market, to the workforce.

To fuel more holistic growth, it is imperative that the remaining skill gaps are plugged, making the youth employable and helping employers to find qualified professionals.

### **The need to build a future-ready workforce**

The need for planned quality interventions of skill development and creating a ready-to-work workforce as per industry demand has become vital. Future workforce skills must include behaviours and mindsets training that transcend traditional technical skills and enable the workforce to operate more agile and resilient. Additionally, digital literacy should be one of the critical components of the training process.

More than theory, the learners should understand the demands of a role before they start work, highlighting the urgent need to make the curriculum job oriented. Regular counselling and mentorship, job shadowing, coaching, and a mixture of classroom, virtual and on-the-job training sessions should be organized to help young individuals make the right career choice. Deploying such a variety of development methods to facilitate the training of individuals shall phenomenally enhance learning, retention, and employee engagement.

There is a need to support tech growth with investment in skills and knowledge. Technical and vocational education and training (TVET) institutes and other national skilling and training authorities need to collaborate with industries to chalk out a curriculum that entails and integrates technological education and advancements.

The government has also taken several steps and initiatives to skill, reskill and upskill the country's youth. It is also enabling various training partners through soft loans, grants, and capacity building. Under the Skill India Mission, the Ministry of Skill Development and Entrepreneurship is implementing initiatives such as Pradhan Mantri Kaushal Vikas Yojana (PMKVY), National Apprenticeship Promotion Scheme (NAPS), Skill Hubs, and more across the country.

Other pertinent initiatives include projects like Project AMBER (Accelerated Mission for Better Employment and Retention), and SIB (Skill Impact Bonds) among others that offer robust, industry-acceptable skills training to enhance the employability of youth and will connect thousands of young adults with sustainable careers. Such significant efforts for skill-building have gained priority, especially after the pandemic tested the strength and resilience of our society.

### **The need to reskill/upskill employees**

Automation and digitization are changing the nature of work and the skills required, making it imperative for employers to focus on reskilling their workers for new, in-demand roles. Workplace education will not only help companies cope with the challenges but also ensure seamless continuity of their operations. To identify future skill gaps, 28% of organizations embrace innovative initiatives, 30% improvise their existing programs, and 19% have already implemented initiatives. Such noble initiatives will help employees and organizations grow together.

In today's data-driven age, organizations should commence their employees' talent upskilling journey by referring to the employee

data rather than treating the same as an afterthought. They must leverage data to understand their employees' skills gaps and formulate a holistic reskilling and upskilling strategy accordingly. A data-led upskilling system helps enterprises hire for the right skills, i.e., understand their skill gaps within the marketplace and the enterprise, drive a proactive approach to position key talent and finally gauge how such changes impact the business.

### **Industry Engagement**

For too long, training/skilling in India has happened without the active involvement of the industry. In the last decade, there have been positive enabling initiatives from the government and industry to develop curricula with industry engagement and by initiating Train the Trainer programmes. Industry engagement is a key element in understanding what are the problem areas and where are the pain points in the skill ecosystem. It also helps in identifying potential job roles to train as well as for curriculum development. While the industry is struggling to hire the right talent, proactive alignment with them is what is required.

### **Bottomline**

When educational institutions and organizations address these contributing factors, they can empower themselves to prepare the workforce for the future. Such initiatives shall phenomenally support enterprises in onboarding top-notch talent through a forward-thinking and data-driven recruiting strategy.



**ARUNESH KUMAR**

*(The author is the CEO of Generation India Foundation.*

*Views are personal.)*



## *Best practices in Education, Skills & Placement*

*Teamwork or group assignments are the core of any study. This allows students to learn various cognitive skills and at the same time share their knowledge with others thereby making them more knowledgeable and dynamic.*

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### PROF. DHRUBAJYOTI CHATTOPADHYAY

**T**he pandemic has taught us to be resilient and at the same time focus on alternative thinking by integrating vertical and lateral thinking. This concept has revolutionized education and has completely reengineered the education horizon. This has developed alternative strategies, hybrid learning technologies and most importantly promoted experimental learning.

Research has shown that the following practices have been identified as practices which can change the education landscape.

**Demonstration along with teaching:** A successful lecture cannot

be complete without proper demonstration. A good teaching practice involves demonstration with model building and experiments to make the students understand their lesson. This enhances clarity of thought and understanding.

**Facilitating Teamwork:** Teamwork or group assignments are the core of any study. This allows students to learn various cognitive skills and at the same time share their knowledge with others thereby making them more knowledgeable and dynamic.

**Encouraging learning experience:** Learning can be made more

interesting by arranging field visits, seminars, conferences and symposiums. This is where students will learn and understand to apply their theoretical learning in practical terms.

**Workshop-based learning:** The students should have the option to ask questions and should have the privilege of workshop-based learning where student-centric learning is focused and teachers act as mentors to guide them if the discussion is not on the proper track.

**Behaviour Management:** Class management calls for a teacher's efficiency in behaviour recognition which tells a lot about the student. This behaviour management should be capitalized on and teaching strategies should be devised accordingly. This will make the class interesting and fruitful.

**Using technology:** COVID-19 has shown the power of technology in learning. This technology can be used to make teaching more interesting and inclusive. Moreover, the use of graphics and high-definition projection can make the lectures more retentive in nature.

**Metacognitive strategies:** Metacognition strategies involve students being aware of their actions and understanding the purpose of action so that they can take ownership of their own decisions. This allows creative thinking to foster and research shows that as the creative bent of the mind increases so does the chance of success.

Skills can be classified as soft skills and core skills. Both these type of skills plays an important role in shaping a student's career. Right skilling is very important for getting the right job. This becomes tougher as AI compete with these skill sets especially after COVID to fill up the skill gaps. The following can be the best practices for skills development.

**To identify and bridge skill gaps:** Most companies are deploying huge investments to bridge the gaps. Extensive learning is the key to this problem. The learning labs develop certain techniques which might be hybrid in nature but are very effective to address these skill gaps.

**Customised learning:** These learning strategies focus on new learning elements which are tailored to enhance productivity and increase efficiency. These elements are designed in such a way that they can absorb volatility and resolve issues within a minimum turnaround time.

**Designing a learning portfolio:** The COVID has given rise to T-shaped HR professionals whose skills sets are in the form of the English alphabet "T" which has the skills of – Data Savvy, Business Acumen, Digital Integration and People's Advocate on the vertical side and Functional competencies on the horizontal side. Hence the learning technology is also designed in a similar fashion to address these skills.

**Skill centre for skill transformation:** Skills kill if cannot be transformed into a useful service. Hence it is pretty evident to design a transformation scale to understand how much of the skills are actually being converted into a useful service based on which the skills would either evolve or would go extinct.

The most important feature for an Academic institution is a generation of employment and the benchmark of this employment

has become tougher after COVID. The following are the best practices for designing a good placement strategy:

**Networking:** Placements are done maximum through networking hence it is pretty essential that the liaison function is in proper hands which makes it easier to bring companies to the campuses.

**Profiling:** Everyone today looks for a good profile and it's quite essential that an institution get a professional profile ready before presenting it to recruiters. The profile must cover the highlights of the student and institute along with the future progression plan.

**Selecting the right candidate:** Companies generally do not have time to filter the candidates and they are willing to get filtered candidates according to the recruitment & aptitude criteria. For example, if a candidate might be strong in numbers but poor in sales, so when a sales-based corporate come to hire talent, even if the finance student seems to be a lucrative option, the placement team should get sales aptitude based student on the interview which makes the task of selection a bit easier.

**Professionalism:** The placement scenario has changed a lot and so should the placement team. The placement team must reflect dynamism and flexibility. It should be a mini corporate office with full-fledged Marketing, Finance, HR and Strategy professionals. The placement team should also have a training and learning division which can make the staffs learn new concepts and up-skill them to acquire new skill sets as their job role demands.



**PROF. DHRUBAJYOTI  
CHATTOPADHYAY**

*(The author is Vice Chancellor,  
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# *NEP 2020: Karnataka transforming its education system through effective governance*

*Being the first state to implement the NEP 2020 in the country, Karnataka aims to modernize and refurbish the way students, faculty and the whole education system is empowered.*

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**DR. CN ASHWATH NARAYAN**

**D**rawn up after the most crucial consultation process, held from Gram Panchayats to the National level, the new National Education Policy (NEP 2020) replaces the 34-year-old National Policy on Education. While announcing the NEP 2020, Prime Minister Narendra Modi emphasized that this policy aims to revolutionize our education

system, focusing on learning instead of studying and going beyond the curriculum to focus on critical thinking.

The proposed outcome of this policy is to bridge the gap between the current state of learning outcomes and what is required, by undertaking major reforms that bring the highest quality, equity, and

integrity into the system, from early childhood care and education through higher education.

Approved by the Union Cabinet on July 29, 2020, Karnataka was the first state to set up the NEP Task Force in March 2020. Subsequently, the State has constituted three sub-committees: School Education, Curriculum Reforms in Higher Education, Governance and Regulation in Higher Education.

By being the first state to execute the new policy, Karnataka aims to modernize and refurbish how education is imparted, received, and utilized in a decade.

Stimulating the higher education, making learning student-centric  
The NEP 2020 aims to increase the Gross Enrolment Ratio in higher education, including vocational education, from 26.3 to 50 percent by 2035. In addition, the state government is planning to set up multidisciplinary universities and colleges in Karnataka with at least one in or near every district. These education institutions will offer programmes in the local language. These will be research-intensive, teaching-intensive, and autonomous degree-granting colleges.

#### **Shifting from a rigid HE curriculum to multidisciplinary undergraduate education**

Additionally, a multidisciplinary undergraduate education will offer a creative combination of subjects, cutting edge curriculum, flexible options, and multiple entry and exit options during undergraduate education. Students can explore their areas of interest and also choose careers of their choice. This approach will foster intellectual curiosity, a critical thought process, self-reflection, leadership and teamwork skills, a sense of commitment, professionalism and a heightened sensitivity to one's socio-cultural environment.

#### **Preparing the faculty**

Key to implementing all the holistic principles of the NEP, it is vital to prepare our cadre of teachers who will carry out this transformation's natural and daunting task. Therefore, NEP will introduce the National Curriculum Framework for Teachers' Education (NCFTE) because the insufficient number of teachers or low recruitment of trained teachers have been persistent problems of the Indian education system.

Steps are also on to train the teachers and faculty through a focused process and planned manner to ensure a seamless transition to the new system that will revolutionize education for the students and a transformation, growth, learning, and development for the faculty well.

#### **Unifying University and College Management**

Taking the lead on executing the NEP 2020 at the higher education level, admissions to private, aided, and government colleges in the state will be based on a recently launched college module for the new academic year in October 2021.

In addition, the universities and colleges in the state are accepting admissions through the Unified University and College Management System (UUCMS). Developed and implemented in collaboration with the Centre for Smart Governance (CSG), Department of E-Governance, Government of Karnataka, the UUCMS is the flagship project, a first of its kind in the country, envisioned by the Department of Higher Education, Government of Karnataka.

The UUCMS unifies and integrates the functioning and the governance of all colleges and public universities in the state, bringing all of them under one umbrella. Ensuring uniformity and unifying the public and technical Higher Education institutions (HEIs) will centralize the data on higher education from the grassroots level. This UUCMS application will help students, parents, faculty, employees and administrators of HEIs in the state.

This means the same list of accreditation and regulation rules will be used to guide both the public and private academic bodies. In addition, phased-out college affiliation and autonomy will be granted to colleges. The management system will also computerize Higher Education Institutions (HEIs) activities, fitting with the start of student journey from admissions to academics to examination to awarding the degree are performed within the UUCMS system.

#### **A robust structure for good governance**

The Karnataka State Higher Education Council (KSHEC) will provide oversight on higher education's independent and autonomous bodies. The Karnataka Higher Education Grants Council (KHEGS) will be responsible for funding and financing. At the same time, the Karnataka State Higher Education Regulatory Council will be the sole regulator for all higher education in the State (except legal and medical education).

The Karnataka Research and Innovation Council (KRIC) will be given the task to catalyze research, promote innovation and collaborate with industry and public services. The National Accreditation Council (NAC), a Central body, will establish an adequate number of Accreditation Institutions (AIs) in the State, with KSHEC influencing NAC in ensuring sufficient accreditation institutions.

The NEP aims to transform the Indian education system by significantly restructuring higher education in almost every aspect. Karnataka has displayed cooperative federalism to achieve the common goal of making India a global hub of knowledge.



#### **DR. CN ASHWATH NARAYAN**

*(The author is Minister for Higher Education and Skill Development, Entrepreneurship and Livelihood, Government of Karnataka. Views are personal.)*



## Capacity building, the final frontier for salvation of cities

*Many studies indicate that we have better healthcare, better lifestyle, and better access to amenities than ever before, along with unbelievably rapid technological advancement and thriving economic growth.*

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HITESH VAIDYA

**W**e are a civilisation with a promising future. If we were to believe one school of thought, this world has never have been a better place to live. The University of Oxford's Our World in Data and the World Economic Forum say that less than 10 per cent of the world population lives in extreme poverty now, compared to a hundred years ago, when the number was close to 90 per cent. Many other studies indicate that we have better healthcare, better lifestyle, and better access to amenities than ever before, along with unbelievably rapid technological advancement and thriving economic growth.

Closer to home, India committed to becoming a 5-trillion economy by 2025, being already the fifth-largest in the world, leapfrogging France and the UK, and is on the way to becoming the third-largest economy in the next five years. The Oxford Economics' Global Cities report estimates that 17 of the 20 fastest-growing cities in the world by 2035 will be from India. This pathway to accelerated economic growth is envisaged through a 'vocal for local' ideology, striving to

make India 'Aatma Nirbhar'.

Despite such bright prospects, the dark clouds of climate change are also more visible than ever before. In Indian cities, the number of hot days and hot nights has increased significantly, which is projected to increase four-fold by 2050 and 12-fold by 2100 under the high emission pathway of RCP 8.5. Moreover, unpredictable and extreme weather events, inflation, and global geopolitical conflicts threaten India's economy. These colossal challenges put enormous stress on infrastructure, available natural resources and public services, compromising the viability of our cities.

### **What should we do for a 'future-ready' India?**

Cities are the drivers of economic growth and provide residents with a better quality of life and increased access to better services and infrastructure. However, cities also experience the brunt of climate change in terms of extreme and severe rainfall, heat waves and cyclones, pollution, infrastructure loss and damage, and a lot more.

It is estimated that climate change will cost the Indian economy approximately Rs 8.4 lakh crore by 2050 if emissions continue at the current rates coupled with a loss of life. Therefore, to ensure sustainable and inclusive urban growth, essential for reaping the benefits of urbanisation, we need planners and city managers to make appropriate and timely decisions more often than not.

### **Capacity Building, the Cornerstone of Making India 'Future-Ready'**

Various platforms have highlighted the urgent need for enhancing urban planning and management capacity-building initiatives. It is not surprising—urbanisation being a relatively new 'discipline', India's inadequacy of city planning and management capacity is understandable.

In response, India has taken concrete steps for a sustained transition to an inclusive and green urban future that prioritises poverty elimination, public health and economic growth while being mindful of climate change. These steps include the preparation of the National Action Plan for Climate Change with eight missions focusing on climate action as a guiding document, directing key flagship missions for urban development as well. India's commitment to COP26 sketched a roadmap for achieving this through the 'Panchamrit' goals. This year, the Lifestyle For Environment (LiFE) Mission was launched, which encourages individuals and communities to lead sustainable lifestyles. There are many others too.

The National Institute of Urban Affairs (NIUA) plays a critical role in the Capacity Building of officials in cities, states, institutions and industries in India. Their focus is on informing policy, decision-makers and an entire ecosystem of urban practitioners for the best possible outcomes. Initiatives that bridge research, practice and collaborations are at the forefront of NIUA's mandate.

One such initiative at NIUA is the City Investments to Innovate, Integrate and Sustain (CITIIS) Programme, jointly conceived by the Ministry of Housing and Urban Affairs (MoHUA), the Agence Française de Développement (AFD), European Union. In addition to the financial assistance, it provides a mentorship model supporting the cohort of selected cities. The National Urban Learning Platform (NULP) focuses on skilling and upgrading ULBs and citizens through a digital platform. It involves 100 Champion Cities curating around 60 online courses with the help of more than 35 content partners.

C-Cube, the Climate Centre for Cities was established to formalise climate change strategies and provide centralised technical support to cities in nine regional languages through a dedicated Help Desk. Additionally, the Climate Alliance Partnership, anchored under C-Cube, is a 60-member strong global climate alliance comprising a range of organisations—bilateral, multilateral, development banks, NGOs, and educational and national government agencies. It is an initiative focusing on capacity building and sensitising urban development professionals working for sustainable urban development in our cities.

Another trailblazing initiative launched in June 2022 by Hardeep Singh Puri, Union Minister of Housing and Urban Affairs, is the Leaders in Climate Change Management (LCCM) Programme. It aims to build public officials' capacities so they can take the lead on climate action in their cities. In addition, the Government of India

has set up an eight-member expert committee to prepare a strategy for training urban planners working with state governments and local bodies in emerging concepts. It emphasises that, in addition to capacity building initiatives, planning education needs to be urgently addressed through the NITI Aayog report, 'Reforms in Urban Planning Capacity'. However, India needs more.

### **Shape 'Future-Ready' Cities with NIUA**

The need of the hour is to come together and scale up the 'Doing-Learning-Doing' cycle necessary for a sustainable transition to our promising future. NIUA invites all cities and universities to come on board and co-create capacity-building initiatives that are outcome-oriented and innovative. Leveraging NIUA's experience and knowledge base, city authorities can collaborate to better plan, manage and capitalise on the innumerable opportunities that our cities present to us.

These partnerships need to focus on developing and delivering programs for the municipal functionaries, including bureaucrats, consultants, civil society representatives, media and elected representatives, and budding urban practitioners. They can be plugged into the spectrum of initiatives anchored at NIUA based on the requisite values, focus areas and themes. New programs can be developed jointly, specific to the needs of an initiative with a different requirement than the ones already anchored at NIUA. Universities can create new planning programmes and/or update/upgrade existing ones in a contextually relevant manner.

In addition to empowering through knowledge dissemination, it is imperative that this knowledge also translates to Action and underlines the 'Doing- Learning- Doing' ideology. NIUA has always considered the dissemination of 'actionable knowledge as the key outcome of such endeavours and continues to do so. It looks forward to collaborating with other institutions, public offices, and academic and research organisations to take this venture forward.

These partnerships have an enormous potential to nudge the quadruple helix (government, civil society, business and academia) and collectively enable cities to take informed decisions for developing a clearer roadmap and embed climate change mitigation and adaptation strategies within their urban planning and development, including investments.

We, as a nation, have come a long way. However, faced with unprecedented challenges, it is time to work with each other as a team, help each other by learning from each other, and move together towards our promising future.



**HITESH VAIDYA**

*(The author is Director, NIUA; views are personal.)*



## *Need for adopting best practices in Higher Education Institutes*

*Be it a case of using virtual-learning technology or having adult-learning pedagogy, it is important for HEIs to have a keen eye to learn through self-experiences as well as from others' best practices.*

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**PROF. RAM KUMAR KAKANI**

**H**igher education as a field is deeply driven by the Sanskrit saying of *matsya nyayah*, i.e., refers to and includes the classical 'fish eats fish' maxim. So, there is a constant need for all higher educational institutes to adopt a culture of best practices, irrespective of being big or small.

This adaptation is best done by going with inquisitiveness and an open mind. Thus, be it a case of using virtual-learning technology or having adult-learning pedagogy, it is important for higher education institutes (HEIs) to have a keen eye to learn through self-experiences as well as from others' best practices.

So, it becomes important for these HEIs to constantly engage with industry partners as well as keep learning from their wide range of peers, both national and international. For instance, HEIs as part of their pedagogy can use international case depositories as well as focus on creating their own. Similarly, one can use the scholarly research work of peers as well as look at opportunities to create one's own scholarly work.

On many fronts, the higher education sector is unlike the corporate world. For example, having a yearly employee turnover beyond five per cent is a dangerous indicator in HEIs (unlike the corporate



world). Thus, to do well in this field implies an implicit belief in the power of intellectual compounding. So, it is important to have non-myopic HR practices as well as student admission processes.

Therefore, if you identify and observe the HEIs in India that created a great reputation for themselves, such as IITs/IIMs/BITS Pilani/ TISS – it is because these institutes had the ability to attract top students through highly competitive exams and retain their intellectual community of faculty and doctoral scholars. These institutes also support academic scholars and students by giving top-of-the-world infrastructure and creating non-noisy stable synergistic ecosystems to create magic. It is also widely visible that these premier institutes' work policies always permitted their academic scholars the flexibility to move as well as spread their message.

In other words, creating HEIs having best practices involves focusing on the needs of their primary stakeholders (viz. next generation and the industry) through:

- identifying and attracting sincere and hardworking academic scholars, both students and faculty;
- motivating the academic scholars and giving them enough space, time, and a relatively stress-free environment to hone their knowledge as well as create new knowledge;
- giving these academic scholars, the required resources (including library, computing facilities as well as databases) as well as building their capacities (through training programmes and research seminars); and



- enabling these academic scholars to spread the message both inside the institute as well as beyond the institute premises through conferences, consulting, and publications.

Besides the above, creating a concoction of intellect involves promoting a culture of diversity as well as cross-functional expertise as an important best practice. I strongly believe HEIs need to imbibe this in their formally documented systems and processes. It can be done by consciously enabling a cap on the proportions of groups representing certain social identities or professional identities.

For instance, you would not like all the students in an MBA classroom from one stream of undergraduate degree OR from one-specific geographic location. It means, institutes such as IIM-Raipur, clearly find ways and means to promote diversity. It does this by way of having a gender ratio of over 62% females in a male-dominated management world.

A corollary of the above matsya nyayah Maxim is – if you are a big educational institute do not eat the smaller educational institute or even the edtech support, providers. Let them survive. A case in point is cloud-based writing software Grammarly and empirical research. It creates complementary benefits, synergies and more.

It is good for the higher education ecosystem. A total lack of competition is not good for anyone. Not even for the Cambridges and Harvards of the world. Cooperating rather than competing should be an important philosophy of best practices. It also implies that one needs to aggressively make alliances and flourish together with the partners. That way, higher education institutes could look forward to learning from the ways of a “flying group of Geese” i.e. willing to fly together and stay in formation.



**PROF. RAM KUMAR KAKANI**

*(The author is Director, IIM-Raipur, Chhattisgarh. Views are his personal.)*



## *How AI helps students pick electives and improve learning outcomes*

*Artificial intelligence-based methods on historic student data are being used to predict the students' performance in the elective subjects.*

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**PROF. AVIK SARKAR**

**W**ay back in 2015, I was involved in a project with the Ministry of Education, Singapore to help students select their elective subjects in secondary school. Often students choose electives that were aspirational and dropped the elective when they could not cope with the same. Also in some cases, there were too few students opting for an elective and when all of them dropped out the teacher allocated by the ministry would be underutilized for the rest of the year.

Artificial intelligence-based methods on historic student data are

being used to predict the student's performance in the elective subjects. But the AI system did not allocate electives to the students. Instead, these AI predictions were used for the student's counselling in choosing the right electives along with their parents and suggest electives where the student can excel and would be aligned with their career goals.

The AI was based on the student's socioeconomic information, past academic performance, extra-curriculum engagement along with information on the school – all this information has been collected

over the years in the database developed by the ministry and handed over to the individual schools which ensured parity in the stored data points across different schools.

### Challenges

Student dropout in secondary school is one of the big challenges in the Indian education system, particularly in public schools. Microsoft worked on a pilot project with the Andhra Pradesh government in 2018 and used AI-based methods to identify close to 20,000 students who are likely to drop out. The AI application was based on data points like student gender, socio-economic demographics, and past academic performance along with other data points like school infrastructure and teacher skills.

With these identified students, the district education officers conducted counselling sessions with the students and their parents to avoid the dropout. Information on student demographics and past student performance is not systematically captured in digital format and was converted into digital format for the purpose of this pilot.

Both these applications – Singapore and India, demonstrate the potential of AI for making personalized student-level recommendations which can then be used by educators to provide personalized interventions to the students. In Singapore and in many other western nations like the USA, student-level predictive recommendations and interventions are frequently used by educators for improved student outcomes which are enabled based on years of granular student data capture and storage in digital format.

Such personalized student-level interventions based on AI recommendations are not quite popular in India and student dropouts, and poor learning outcomes remain pertinent issues. India has a robust system for the collection and storage of detailed school-level information in the Unified District Information System for Education (UDISE) but there is a lack of a comparable system for the collection of granular year-wise student-level data on academic performance and other aspects which can be used for developing comparable AI-based recommendation systems.

The pupil-teacher ratio for public schools in India is one of the worst compared to the other BRICS nations and teachers often get involved in other activities like the distribution of food or cooking mid-day meals leading to less time available for teaching and improving student outcomes.

Artificial Intelligence technology can help in increasing the productivity of teachers ensuring they have more time dedicated to student learning outcomes. The company Pearson is a leading provider of educational assessment services in the USA based on artificial intelligence. In India, the unavailability of answer sheets in digital formats can be overcome using AI technology to transcribe the answer sheets into digital formats thus enabling automated assessment evaluation.

India's ed-tech ecosystem is dynamic and comes up with innovative solutions to bridge some of these gaps. One such ed-tech company, Embibe provides a learning platform that carries out student evaluation and captures granular student data which is used for providing in-depth analysis of the student along with personalized learning recommendations. Byjus, an ed-tech company based in India is at the forefront of using analytics and artificial intelligence-

based real-time data collected on student performance through learning journeys and assessment tests. This richly collected data helps in analyzing the learning patterns of students and provide predicted scores for evaluation based on their past performance. In a classroom, while teaching many students the teacher is unable to focus attention and change the teaching level to match the learning levels of various students.

In the online learning platform based on the student's learning abilities, the platform provides formative recommendations enabling dynamic learning paths which are customized for every student. For example, a student who has already understood a basic concept would be provided with more challenging content on the same topic. Another student who has not demonstrated a complete understanding of that concept would be provided learning material in a simpler format to enable a proper understanding of the concept. Such personalized recommendations and dynamic changes in the learning modules can yield better learning outcomes for the students.

Like many other domains, analytics and artificial intelligence are making a huge impact on improving student learning outcomes. Frequent use of AI tools is common in several western nations where granular student data is collected by schools. These tools have been demonstrated in public schools in India for identifying student dropouts and ed-tech companies have demonstrated improving the learning outcomes based on these AI-based tools.

Granular digital data collection for school students on academic and other aspects would open multiple avenues for AI-based personalized student interventions leading to improvement in student outcomes. Like Electronic Health Records (EHR) in the healthcare domain, the Ministry of Education may develop a comprehensive framework for collecting student academic and extracurricular activity data and make this system available to all public and private schools for systemic data collection in digital format. Analytics and AI developed on this data can easily identify students who need intervention, and this information can be further shared with the parents and higher education officials in the state government for monitoring the intervention and their outcomes.



### PROF. AVIK SARKAR

*(The author is a visiting faculty at the Indian School of Business & Former Head of the Data Analytics Cell at NITI Aayog. Views are personal.)*



## *Is handloom industry passing through the best time in independent India?*

*With more than 70% of all weavers and associated workers being women, it is also a sector that specifically addresses the empowerment of women. Nearly 19 per cent of the nation's total fabric production comes from this industry, which also significantly boosts export revenue.*

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**PROF. INDRANIL BOSE & PROF. NILANJAN RAY**

India's handloom heritage has a long history of exceptional craftsmanship that embodies and protects the colourful Indian culture. The distinctive hand spinning, weaving, and printing techniques of India's loom weavers are renowned across the world. They operate out of rural towns and villages where skills are passed down from one generation to the next. In rural and semi-rural areas of our country, the handloom industry is a significant source of livelihood and a representation of the diverse and rich cultural history of our nation.

With more than 70% of all weavers and associated workers being women, it is also a sector that specifically addresses the empowerment of women. Nearly 19 per cent of the nation's total fabric production

comes from this industry, which also significantly boosts export revenue. The flexibility and adaptability of the handloom are unique, allowing for experimentation and inspiring developments.

However, the weavers in India have faced several existential crises due to different reasons. Some of them can be explained as follows. Having access to raw materials like yarn, dyes, cotton, silk, and jute is important because their costs have been rising as a result of production and processing carried out in far-off locations. Also, there is no investment made in sectoral development, and many locations require land, water, and electricity for manufacturing. Weavers have not been stimulated to accelerate market change by investors and the need to protect handloom designs for long.

Experts in the field have expressed concerns about the handloom industry which requires special measures for textile import and export. Also, all support is needed to make handloom products more visible and give them a bigger market network. Also, to protect rural jobs and implement new programs that address the sector's difficulties, the budget must be increased. It is also needed to utilise organic cotton and yarn, natural colours, and to boost loom productivity via research and innovation to increase the value of handloom products. With no home or assets, some groups of handloom weavers are living on the edge. The government needs to address these problems and needs to put the Minimum Wages Act into action.

The present government at the centre has come up with five major schemes to provide support to the sector. These are National Handloom Development Programme (NHDP), Comprehensive Handloom Cluster Development Scheme (CHCDS), Handloom Weavers' Comprehensive Welfare Scheme (HWCWS), Weavers Mudra Scheme and Yarn Supply Scheme.

National Handloom Development Programme (NHDP) a central sector plan scheme has been developed for the financial years 2021–2022 through 2025–2026. For the integrated and comprehensive development of handlooms and the welfare of handloom weavers, the National Handloom Development Programme (NHDP), will adopt a need-based approach that will assist weavers with raw materials, design inputs, technology upgrades, and marketing assistance through exhibitions, and permanent infrastructure. The main components of the scheme are for weaving groups to become self-sustainable. The cluster growth strategy has also placed a strong emphasis on the emergence of each group as a distinct, visible entity. As per this programme, the cluster focused on handlooms will be established at the Block level, and more than one cluster may be taken up in a block depending on the number of handlooms. The goal of the handloom marketing help is to build and promote marketing channels in both domestic and export markets, as well as to create a holistic and integrated link between the two.

The Comprehensive Handloom Cluster Development Scheme (CHCDS) is utilised by the Indian government to build mega handloom clusters with at least 15000 looms each. Under this scheme, mega Handloom Clusters have been planned to target their holistic development, with detailed development plans being created. At least 10,000 handlooms will be covered by each mega handloom cluster, with a commitment from the government of India of up to Rs. 30 crores and each Mega Cluster will receive the help of a level and type determined by its needs. Varanasi (Uttar Pradesh), Sivasagar (Assam), Virudhanagar (Tamil Nadu), Murshidabad (West Bengal), Prakasam & Guntur districts (Andhra Pradesh), Godda and neighbouring districts (Jharkhand), Bhagalpur (Bihar), and Trichy (Tamil Nadu) are the eight mega handloom clusters where the scheme is being implemented. The scheme has also made required funds available for a variety of interventions, such as technology advancement, product development, the establishment of Value Addition Centers, Common Facility Centers (CFC), Marketing Complexes, Dye Houses, and Corpus Funds for Yarn Depots etc.

Handloom Weavers' Comprehensive Welfare Scheme (HWCWS) seeks to offer handloom workers and weavers throughout the nation a Social Security that is both universal and reasonably priced. Under this scheme, Insurance protection has been offered to the weavers against natural death, accidental death, and total and partial

disability. The scheme has also offered financial assistance in the form of scholarships up to Rs. 2 lakhs annually to the children of the weavers to attend textile institutes. Some other supports extended to the weavers are Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY), and Converged Mahatma Gandhi Bunkar Bima Yojana (MGBBY), Handloom Weavers Comprehensive Welfare Scheme (HWCWS) offers life, accidental, and disability insurance coverage.

Two major initiatives have been found in recent years to build up the capacity of promising weavers and highly skilled professionals for the handloom industry in India. These are the 'Handloom School' at Maheshwar, Madhya Pradesh and the Indian Institute of Handloom Technology. The 'Handloom School' has implemented a model of learning that is global, scalable and designed specifically for young handloom artisans, making entrepreneurial education a catalyst for change. Here, with the right curriculum, and an educational program for weaving, youth can be instrumental in solving most of the issues that afflict Indian handloom today.

The Handloom School is a first-of-its-kind networked learning platform for young handloom weavers and a professional resource centre for the weaving community. In a unique approach, The Handloom School provides young handloom artisans from various regions of India the opportunity to live, work, learn and grow together as weavers, and also as individuals. The overarching goal of the School is to train today's young generation of weavers to continue, to grow and prosper in the handloom industry, with an evolved sense of pride for handloom as a respectable and financially remunerative vocation. Indian Institutes of Handloom Technology (IIHTs) are government-run public institutes of higher education in the handloom sector. There are six institutes in the central sector and four in the State sector. Till 2021, a few thousand learners have joined these institutes and joined the workforce as skilled professionals in the handloom industry across India.

Central sector IIHTs are under the administrative control of the Ministry of Textiles, Government of India and State sector IIHTs are under the administrative control of respective state governments and bodies.

These initiatives have made the handloom industry in India the second largest employment provider in the rural region employing more than 3 million people in direct and allied activities with 23.77 lakh looms. However, it is needed to see and constantly monitor, how the government schemes are actually impacting the sector and its craftsmen.



**PROF. INDRANIL BOSE &  
PROF. NILANJAN RAY**

*(The authors teach at Adamas University, Kolkata. Views are personal.)*



## Forever Young!

*There is a new understanding of what we want and about redesigning entire systems and not just their individual and tangible components and manifestations, students now speculate longer-lasting sustainable practices for the future.*

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**PROF. UTKARSHA MALKAR**

**A**s I contemplate my mortality in this iconic decade, I cannot help but face the inevitable... as I leave my footprints on the sands of time... I truly want to live forever young in the memories of my loved ones. As I turn another year older, my potential leading to my mortality seems more real than ever. The 20s were a breeze, the 30s were rocking, the 40s were been there done that ... and the 50s is for planning the after-life!

### Flashback 1980

As a mentor to Design students, I experiment with how to adapt to 21st-century elements in education and shed out-of-date practices.

Incremental efforts play out at Atlas SkillTech University, Communication Design program as the theory of redesign begins with a problem, the problem might be specific or systemic or subjective. There is a new understanding of what we want and about redesigning entire systems and not just their individual and tangible components and manifestations, students now speculate longer-lasting sustainable practices for the future.

The Pandemic has taught us many lessons and opened our minds to discussing death in a new context. As we grapple with our mortality and its evident consequences we cannot help but rethink

the 'after-life' phenomenon. What we are facing is the stark reality of our failing health systems and community systems which have shown many cracks during the worldwide lockdown. The leading cause of death worldwide is still Coronary heart disease and strokes. COVID-19 would rank as the sixth-deadliest disease in the world.

Closer to home a celebrities death which remains under the section certified as 'mysterious circumstances has led to the opening of Pandora's box in the very aftermath of an unplanned demise which can cause havoc on our dear ones who are left helpless and probably in a state of shock. At Atlas Skilltech University, in the Communication Design

Program, our online held fall semester ended with an innovative elective titled AIML |A Whole New World, Communication Designers design a brave new world where AI plays a predominant role in our life as well as our death.

Just as the Internet has been such a great driver of change across so many spheres over the past 20 years, we will see machine intelligence in the same role over the coming decades. Artificial Intelligence (AI) and (ML) Machine Learning is poised to disrupt our world. With intelligent machines enabling high-level cognitive processes like thinking, perceiving, learning, problem-solving and decision-making, coupled with advances in data collection and aggregation, analytics and computer processing power, AI presents opportunities to complement and supplement human intelligence and enrich the way people live and work. A crisis faced by our species as a whole if anything has made us realise one thing... in most times of uncertainty one thing that is certain ... is death.

Communication Designers Riddhi Vyas & Siddhi Vyas speculate on a platform inspired by the Replica Theory, which connects people from generation to generation with the most accessible technology on the most accessible platform 'Facebook' now Meta.' Meta's focus will be to bring the metaverse to life and help people connect, find communities and grow businesses. AI or Artificial intelligence is the closest we have come to Akashic records on the human realm.

It will enable us to encode an endless stream of data which can be accessed by the ones we live behind. In theosophy and anthroposophy, the Akashic records is a compendium of all universal events, thoughts, words, emotions, and intent ever to have occurred in the past, present, or future in terms of all entities and life forms, not just human. They are believed by theosophists to be encoded in a non-physical plane of existence known as the mental plane. All thoughts, words, intent, etc. generate their own unique "frequency or vibration" stored in the Akashic Records.

The Akashic Records, also known as "The Book of Life" or "God's Book of Remembrance," can be equated to the universe's super-computer system — or perhaps what today would be called cloud computing. They are the central storehouse of all information for every individual who has ever lived on the earth. The 'new normal is 'evolving among uncertainty'. The pandemic has not only reshaped the fundamental of the world, rather it has accelerated technology and digital transformation trends.

#### **REPLICA APP 'mybook' DESIGN CONCEPT USP :**

'mybook' on metaverse a glimpse into the past to create future Making your posts, videos and content available for years after your

demise. Having your voice registered to enable your chatbot. By leveraging machine learning and natural language processing, AI-powered chatbots can understand the intent behind your words.

Conversations with your loved ones who are no more with the help of the using VR. Facial masking to access videos and messages.

Access to different family members individually for content recorded for many years in advance. ( Posts which can be timed and sent in the future even in your absence. e.g. A message to your grandchild on their graduation day)

The nature of the crisis will always change; we will always be amazed by how creative and resilient humans are. If we look back after a few years we can expect that people will appreciate the range of possibilities that this time has led to allowing us to rethink the most important things in life and death. Leaps in technology will enable information to be more accessible in the future as we consider and contemplate we choose and make sense of events and feelings.

The metaverse will feel like a hybrid of today's online social experiences, sometimes expanded into three dimensions or projected into the physical world. It will let you share immersive experiences with other people even when you can't be together — and do things together you couldn't do in the physical world.

AI has enabled some amazing possibilities for our digital afterlife. As AI-based solutions permeate the way we live and do business, questions on ethics, privacy and security will also emerge. Students have engaged in various speculations and predicted scenarios.



### **PROF. UTKARSHA MALKAR**

*(The author is the Programme Director of Communication Design at Atlas Skilltech University, Mumbai. Views are personal)*



# How Does the Overhauled Education System Impact the Indian Economy?

*Our Indian education system got a new face in the form of online teaching recently. Sadly, around 1.5 million schools across the country were forced to close down during the pandemic.*

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**PROF. SP CHAKRABARTY & PROF. RIPON BHATTACHARJEE**

**T**he education system and its impact on the Indian economy have fairly gained unprecedented prominence as an evident aspect of development. That's because substantial investments in human capital drive a country towards longstanding social and economic progress. As India completes her 75th year of independence, the landscape of the education system has changed incredibly over the decades, shifting from the conventional concept to a hybrid mode of learning today.

The turning point, ironically, was the COVID-19 pandemic in 2020, which changed the 'chalk and talk methodology' into a blended format overnight in many institutions. The world at a standstill witnessed the emergence of online models for the continuity of education. Two years later, how far did we come and how long to go?

## **The Concept of Education System in the Present Day**

Our Indian education system got a new face in the form of online teaching recently. Sadly, around 1.5 million schools across the country were forced to close down during the pandemic.

While the mayhem pushed some educational institutions to adopt

the much-needed tech sophistication rapidly, a greater part continues to follow conventional teaching methods, which remain universally relevant even post-pandemic. Young minds need the traditional teaching system supplemented with the online methodology.

To further promote this concept, the Government of India reformed the National Policy on Education in 1986 and replaced it with the National Education Policy (NEP) of India 2020 after 34 years. NEP 2020 brings ground-breaking changes, some of which include:

- The traditional 10+2 curriculum will change to a 5+3+3+4 system in schools.
- The concept of exams will now be mostly based on application and knowledge-based learning.
- Schools will now have to introduce vocational education and the concept of internships from class 6.
- Core concepts and practical learning will be emphasized in school curriculums.
- Students will be free to select their preferred subject from various options in a stream.
- Leveraging the advantages of technology and focusing more on online teaching.



With NEP 2022, the Government of India has also instructed ICT-based educational initiatives and online platforms to optimise their offerings and address the present and future challenges in imparting high-quality education. Aiming for the same, the new education policy advises the following:

- Teachers' training for gaining the additional skill to work on online platforms efficiently.
- Utilising various digital resources to boost student-teacher engagement.
- More investment in digital infrastructure.
- Creation of virtual labs with the assistance of e-learning platforms so learners can do hands-on practice and experiment-based study.
- Universities and colleges are to run pilot projects to maximise the perks of digital learning.
- Designing a cutting-edge framework for examination based on 21st-century technology. Students will be assessed according to the latest standards of digital education.
- For students in rural areas where almost 50% of the Indian population reside, pre-recorded classes are to be telecasted via community and television radios in the respective regional languages.
- Growth of digital learning and education should not compromise traditional modes of learning.
- In the case of digital education, appropriate bodies like NETF will consider the standards for technology and e-content. Necessary guidelines for digital learning methods, classrooms and e-learning will be decided by the government.

Needless to say, educational institutions are under tremendous pressure to implement this change. Many universities are already evaluating multiple ways to renovate classrooms with excellent standards that promote hybrid learning. For the uninitiated, hybrid learning is the approach in which a part of some students attend classes in person while the rest attends online classes from their homes.

Following the digital transmission initiative of AICTE, around 10,000 institutes in India will now facilitate remote and in-person education to students. An innovative coexistence of blackboard and screens, indeed! With all such major modifications happening in the education system, where does the economy stand in terms of the former's impact on it? Let's take a glance!

#### **Impact of the Indian Education System on our Economy**

Over several decades, economists have advocated a strong correlation between education and economic growth. Education is a crucial component of human capital, which happens to be an indispensable part of the country's economic system. Substantial investment in human capital can aid any nation in attaining sustainable economic development. This is where the role of education magnifies!

The World Economic Forum 2016 defined education as a stock of competencies, skills and various characteristics of productivity enhancement. Learning increases the creativity and knowledge of an individual, making him or her skilled and disciplined in life. It, thereby, promotes innovation, technological advancements, entrepreneurship and professionalism, driving the country's economic growth.

The Government of India has been actively supporting education through various schemes, initiatives and expenditures for its development. Here're some latest statistics:

In Union Budget 2022, the monetary allotment for the education

sector has been raised by 11.86% this year, taking the total budget to Rs. 1,04,278 crore. As declared by the finance minister of India, this budget shall predominantly focus on creating the digital university, digital education, job creation, skill development, agricultural universities, etc.

#### **Why is Digital Education Being Focused on?**

Post the pandemic situation, India has already headed towards digital education. While traditional methods are here to stay, innovative young minds firmly intend to go beyond book learning and tap into unexplored opportunities. This transformation needs a boost from the government so that the country's youth can emphasize their overall development and thereby contribute to our economic growth.

Besides, digital education has its own set of benefits, such as:

- Eliminates the physical presence of students and teachers, thus, making learning accessible to remote areas.
- Participates can join classes from anywhere and at any time.
- Learning becomes more personalised, interactive and engaging. The audio-visual features help improve the cognitive level of students.
- Various tools are available online to assess the progress and assignments of students, share notes, complete projects and do more, all from the comfort of their place.
- With no paper requirement, digital learning helps maximise resources and reduce costs, thereby impacting the environment favourably.

#### **The Need of the Hour – Laws Needed to Take Shape!**

Over the past decade, reports of several judges have repeatedly stressed data privacy and urgently looked into data protection laws. With no such law in existence, concerns like copyright infringement of e-content, data privacy and even online bullying continue to persist. Standing in 2022, as more companies and educational institutions go online, we must immediately assess what data, e-content ownership, etc. signify in today's context. Even the government has agreed that India requires a comprehensive legal framework with separate laws for regulating its evolving digital ecosystem.

It requires the involvement of administrative officials, legal practitioners, educational institutions, parents, teachers and students to take responsibility and ensure the prevention of data breaches. If the loopholes are taken care of, digital learning can bring a ground-breaking transformation to the Indian education system and impact economic development positively.



**PROF. SP  
CHAKRABARTY**



**PROF. RIPON  
BHATTACHARJEE**

*(SP Chakrabarty is professor of law and Ripon Bhattacharjee is associate professor at University of Engineering and Management, Kolkata. Views are personal.)*



## *HOPE: I am Audible!*

*Over the years, the education sector was undergoing a gradual shift in the conduct of knowledge. But the pandemic fast-tracked the entire process and stirred innovations in this sector. Prior to the pandemic attack, the majority of educators would've shunned the idea of remote learning and teaching. They would've never compromised on the experience of an actual class.*

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### PROF. CHETANA ASBE

**O**n March 24, 2020, Prime Minister Narendra Modi announced the first, complete lockdown in India. What started as a cursory phenomenon of 21 days, ended up appearing as a lifetime.

The education sector was probably one of the fastest to adapt to the changing situation. Classes went online, learning resources were made accessible virtually. And, all this was done in a matter of just a few days! Why? Because we had promises to keep. A promise is made to our learners that we will provide them with the best education in our capacity. A promise was made to our placement partners that we would create industry-ready candidates. And, we could not let the pandemic turn our promises into a learning crisis.

Over the years, the education sector was undergoing a gradual shift

in the conduct of knowledge. But the pandemic fast-tracked the entire process and stirred innovations in this sector. Prior to the pandemic attack, the majority of educators would've shunned the idea of remote learning and teaching. They would've never compromised on the experience of an actual class.

The real-time feedback that they saw in the eyes of their learners could never be traded against a thumbs-up on the screen. Also, the education sector is one of the very few sectors where age is not a barrier. And sometimes, growing age brings along certain apprehensions towards the use of technology. But, since it was not a time to pamper hesitations, all educators rose to the occasion.

With a series of lockdown extensions, educators began to realize that alternate ways of educating are here to stay. The government as well

as the related industries took urgent action and offered complete support (particularly with examinations and proctoring).

The pandemic posed a striking question that was looking into the face of all universities and educational institutes. Can education be imparted through classroom sessions only? And, given the back-drop, the answer could not be a yes.

The most vital aspect introduced during the pandemic was the flexibility in imparting learning experiences. We saw seminars being replaced by webinars and auditorium applauds being replaced by emoticons. Learners, supported by their faculty mentors held cultural events across states and even conducted online skits. Kindness, too, could not be quarantined. Several acts of social welfare were carried out in unique manners. All of this only goes to explain the amount of coordination that can be displayed, even remotely.

We have always been admiring the response of educators and our government to the pandemic, however, we seldom deliberate the quandary of the learners. The sudden spot wasn't any less challenging for them. While we have all had a laugh at the memes circulated on the connectivity issue, most of the time, the problem was real. While most cities and towns could afford to bring about unique developments (given the facilities that they are blessed with), many educational setups in rural areas suffered tremendously. These areas were deprived of access to adequate internet connectivity and smart electronic devices.

In addition to the technological summons, the system also faced psychological concerns. Certain batches were admitted and convoked, virtually. There was something amiss- undoubtedly, the warmth of interacting with our peers. Not only the learners but also the educators missed their professional relationships. Being confined in the walls of our houses, all day long was giving rise to mental and physical health issues.

The COVID waves washed the lives of many near and dear ones. It was disheartening and disturbing to encounter the mounting death toll. Therefore, to maintain the psychosocial well-being of the system, universities and educational institutes organized virtual, expert sessions that facilitated coping-up with such disorders.

While maintaining the physical and mental health of the system, the onus of imparting quality education persisted alongside. Given the speed of change across sectors, the learners could no longer be prepared solely for traditional job roles.

Many citizens were losing their employment despite possessing educational degrees. This called for revisiting the existing curriculum and designing one that would lay more emphasis on human values as well as technology. A competency-based, flexible curriculum that focused on skill development was the need of the hour. Many universities encouraged their students to co-develop their curriculum together with corporate experts.

A complete educational experience cannot be based on curriculum alone. It has to be complemented with appropriate pedagogy. Considering the recent statistics on attention span, interactive and student-centred learning tools were required to keep the learners engaged. Online breakout rooms allowed closeness in remoteness for the required discussions, brain-storming and critical thinking.

To overcome connectivity issues, pre-recorded videos were prepared by educators. This allowed the learners to absorb the content of the various courses in a self-paced way and later virtually discuss them as a class.

In the pre-pandemic era, the proximity of guest speakers was of prime concern. But now, the geographical boundary is no longer a worry. Any domain expert, from any part of the world, at any time of the day, can share knowledge with the learners.

As students saved their commute time, institutes could offer them part-time, online internships. Students could also enrol to value-adding e-courses that would prepare them for their corporate and/or entrepreneurial life. And, trust me, nothing brings more joy to an educator than to see the potential leaders of tomorrow being well-placed.

The optimism of all the players in the education industry was commendable. Notwithstanding the bitter lessons, they have captured some definite, significant takeaways. While we carry forward the learnings that are here to stay, we must leave no learner behind. We must aim at addressing diversity and providing an equitable education system (primarily by tackling the issue of the digital divide).

Now learners see fewer of holiday-announcements during the down-pour in India- the classes are conducted online!



### **PROF. CHETANA ASBE**

*(The author is the Head of the Department of Finance, and an Associate Professor at Atlas SkillTech University, Mumbai. Views are personal.)*



## KIIT:

Surpassing its own excellence to become the University that takes India ahead

**KIIT HAS BEEN ACCREDITED WITH A++ GRADE, THE HIGHEST OF ITS KIND BY THE NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC).**

Kalinga Institute of Industrial Technology (KIIT), a household name in Odisha for tech education, and one of the most sought-after universities in India for professional education have become a case study.

No other educational institution in India has grown in scope and scale like KIIT has in a short span of time.

All over the world, KIIT is being appreciated for its vision, top-notch academics and steadfast commitment to community service.

One would seldom imagine that such a prolific institution of monumental dimension was made by an unassuming humble being who had just Rs 5,000 in his pocket, but big dreams in his eyes and a passion to eradicate poverty and hunger.

KIIT which started in a two-room rented apartment with 12 students and two teachers in 1992 has grown to become one of the most promising and widely acclaimed universities offering professional education to around 35,000 students from all over India and 65 countries across the globe.

With a vast 25 square kilometre academic township, 25 campuses, over 2,500 eminent faculty and researchers, 15,000 staff, a multi-storey central library and libraries in each school, central research facility, 22-storey research and innovation wing, many auditoriums the largest being of 5,000 capacity, 16 sports complexes, 15 food courts, rose garden, greenest campus in India, KIIT provides a holistic human development model that can not be experienced anywhere in the world.

KIIT is known for three main pillars apart from experiential learning, excellent placement and world-class infrastructure:

- Student and Parent Friendliness
- Community outreach work
- Promotion of Sports
- The high education institute has got all accreditations and affiliations from prestigious national and international bodies.

KIIT Deemed to be University has made a significant jump in the Times Higher Education 'World University Ranking' for 2023, being placed in the cohort of 601-800 as against 801-1000 in the previous year, surpassing all private institutions in India. Its ranking school-wise is very impressive with the Computer Science Faculty being ranked in the cohort of 301-400 in the world.

KIIT has been accredited with A++ grade, the highest of its kind by the National Assessment and Accreditation Council (NAAC).

It has got prestigious accreditation for six of its Engineering courses by the Accreditation Board for Engineering and Technology (ABET), USA and the Institution of Engineering and Technology, (IET), UK.

It has been ranked 8th best University in the world in the prestigious Times Higher Education Impact Rankings 2022 for the impressive progress made in 'reducing inequalities' (SDG10).

It has also been the top university for innovation among private institutions for two consecutive years.

The national ranking of 20th position by the National Institution of Ranking Framework, NIRF, Ministry of Education, is exemplary in a short span of 30 years.

KIIT and KISS have tremendous contributions to the field of Sports. KIIT has nurtured and produced several Olympians who are pursuing their education at KIIT free of cost and are

being wholeheartedly supported in all their endeavours in the Sports field, for which it has been adjudged as the best university for the promotion of sports by Sportstar. KIIT and KISS are the nodal centres for FIFA Football For Schools Programme in Asia for the promotion of Football at the grassroots.

Alumni of KIIT have made their mark in respectable positions in academics, Corporate organisations, Civil Services and Enterprise. Besides its huge impact on the development of the state and city, KIIT has made an immense contribution towards art, culture, sculpture, rural development, literature and spiritualism.

KISS, Kalinga Institute of Social Sciences, the humane face of KIIT is a home for 70,000 indigenous children (30,000 alumni and 30,000 currently pursuing education on the campus and 10,000 students in satellite campuses) who are provided with accommodation, nutrition, holistic education, skills and sports empowerment fully free of cost. Recently, KISS has been conferred with the UNESCO International Literacy Prize 2022, the most prestigious and highest of its kind for outstanding contribution to the education and protection of indigenous languages through its innovation.

All the achievements of KIIT have been possible because of its founder - Dr Achyuta Samanta. Everyone is hooked to the kernel called Dr Achyuta Samanta. He steers the institute to growth. He is also the epitome of principles, discipline and hard work. The ethics of the institution is guided by his visionary leadership. His humility runs in the DNA of the Institution. He is the epitome of self-sacrifice and selfless service. His life and work prove that to help fellow human beings one need not be wealthy but to be good at heart that value the dignity of human life. Instead of basking on its past glory and exponential growth, KIIT under the leadership of its founder looks forward to achieving greater heights in rankings, research and academics to become the University taking India ahead.



# Glimpses Education Leadership Summit 2022





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(Accredited 'A' Grade by NAAC)

**nirf** India Ranking-2022 (151-200)

The University of Science & Technology Meghalaya (USTM) is the fastest growing University in the North East India being established in a picturesque landscape surrounded by tranquil greenery in Assam-Meghalaya border just one km from Guwahati-Shillong Road, Baridua, 9th mile, Ri-Bhoi District of Meghalaya. It is about 85 kms from Shillong, the Capital of Meghalaya & 6 kms from Dispur, the Capital of Assam. The campus is well connected by Rail & Air, only 15 kms from Guwahati Railway Station & 35 kms from Guwahati International Airport.

The university has been accredited with "A" grade by NAAC in the first cycle of assessment and recently it is listed within the top 200 Universities of India by National Institutional Ranking Framework (NIRF). At present, USTM is having an enrollment of more 5000 students of which nearly 1500+ students are availing free education. Around 90% of its total enrollment is that of rural students, with over 38% are tribal students and 57% are girl students. The University offers UG, PG & Ph.D. degrees under its different schools viz. :

## UG COURSES

- ❖ B.Sc. Physics
- ❖ B.Sc. Botany
- ❖ B.Sc. Zoology
- ❖ B.Sc. Chemistry
- ❖ B.Sc. Mathematics
- ❖ B.Sc. Microbiology
- ❖ B.Sc. Biotechnology
- ❖ B. Com (H)
- ❖ BA English
- ❖ BA Sociology
- ❖ BA Psychology
- ❖ BA Economics
- ❖ BA Political Science
- ❖ BA Administration & Governance
- ❖ BBA
- ❖ BCA
- ❖ BSW
- ❖ BPT
- ❖ DMLT
- ❖ B.Sc. Yoga

- ❖ B.Sc. Herbal Science
  - ❖ BA / B.Sc. Geography
  - ❖ B.Sc. Rural Technology
  - ❖ B.Sc. Extension & Farm Mgt.
  - ❖ B.A/ B.Sc. Rural Development
  - ❖ B.Sc. Medical Lab Technology
  - ❖ B.Sc. Food Science & Technology
  - ❖ BA LLB (H)
  - ❖ BBA LLB (H)
  - ❖ LLB (H)
- Approved by BCI  
**B.Ed**  
Approved by NCTE  
**D. Pharma, B. Pharma**  
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## PG COURSES

- ❖ M.Sc. Physics
- ❖ M.Sc. Botany
- ❖ M.Sc. Zoology
- ❖ M.Sc. Chemistry
- ❖ M.Sc. Mathematics
- ❖ M.Sc. Microbiology
- ❖ M.Sc. Biotechnology
- ❖ MA English
- ❖ MA Economics
- ❖ MA Sociology
- ❖ MA Education
- ❖ MA Political Science
- ❖ MA/ M.Sc. Geography
- ❖ M.Sc. Rural Technology
- ❖ MA Rural Development
- ❖ MA Applied Psychology
- ❖ M.Sc.Environmental Science
- ❖ M.Sc. Extension & Farm Mgt.
- ❖ Master of Hospital Administration
- ❖ M.Com (H)
- ❖ MSW
- ❖ MCA
- ❖ MLI&C
- ❖ MA Khasi
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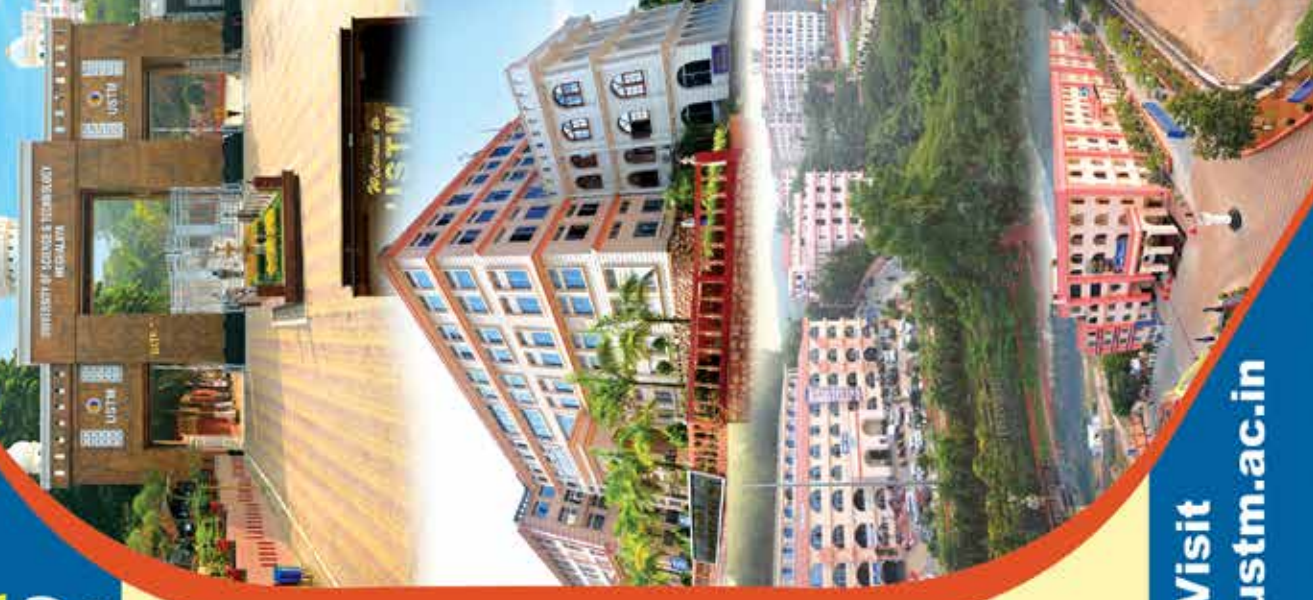
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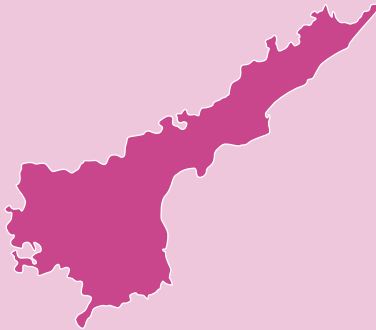








## State Education Budgets



### ANDHRA PRADESH

The Department of Education got an amount of **RS 30,385 CRORE** for the fiscal year 2022-23. An amount of Rs 8,015 crore has been allocated towards teaching grants to Mandal Praja Parishads and Rs 2,136 crore allocated towards Samagra Shiksha Abhiyan. As part of the ongoing plans, infrastructure for as many as 24,620 schools under phase III of the Nadu and Nedu programme will be upgraded. Under this, infrastructure facilities (such as furniture, fans, lights, and drinking water) in schools are upgraded.

### ASSAM

For the fiscal year 2022-23, an amount of **RS 23,095 CRORE** was allocated to Education by the Bihar government. Of which, Rs 2,181 crore has been allocated for Sarva Shiksha Abhiyan and Rs 688 crore allocated for National Mid-Day Meal Programme.

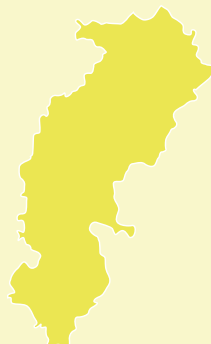
Assam has allocated 20.1% of its total expenditure for education in 2022-23. This is higher than the average allocation (15.2%) for education by all states (as per 2021-22 Budget Estimates).



### BIHAR

Bihar has allocated an amount of **RS 40,828 CRORE**, an 18.4% of its total expenditure for education in the fiscal year 2022-23. This is higher than the average allocation (15.2%) for education

by all states (as per 2021-22 Budget Estimates). Allocation towards cash incentives to female students for completing senior secondary is Rs 400 crore. An amount of Rs 300 crore has been allocated towards the mid-day meal scheme.



### CHHATTISGARH

Chhattisgarh has allocated an amount of **RS 19,574 CRORE**, an 18.9% of its total expenditure for education in the fiscal year 2022-23. This is higher than the average allocation (15.2%) for education by all states (2021-22 BE). As part of the ongoing reforms, the examination fees for Chhattisgarh domicile applicants will be waived off in all professional examinations conducted by the Chhattisgarh Professional Examination Board and the Chhattisgarh Public Service Commission. Rs 1,380 crore has been allocated towards Sarva Shiksha Abhiyan and Rs 674 crore allocated towards PM-POSHAN.

*Disclaimer: Budgets are approximate amounts.*

## DELHI

Delhi has allocated 23.5% of its total expenditure for education in the fiscal year 2022-23. This is higher than the average allocation (15.2%) for education by all states (as per 2021-22 Budget Estimates). The total allocated budget for education is **RS 15,507 CRORE**. Of which, an amount of Rs 3,485 crore has been allocated towards government primary schools and Rs 1,460 crore has been allocated for assistance to local bodies for primary education.



## HARYANA

The state's total education budget for the fiscal year 2022-23 is **RS 19,711 CRORE**. Of which, Rs 500 crore has been allocated to Sarva Shiksha Abhiyaan. Rs 321 crore has

been allocated to Mid-Day Meals Scheme. Haryana has allocated 14.2% of its total expenditure for education in 2022-23. This is lower than the average allocation (15.2%) for education by all states (as per 2021-22 Budget Estimates).

## GUJARAT

The state's total education budget is **RS 30,537 CRORE** for the fiscal year 2022-23. Of which, Rs 1,079 crore has been allocated towards Samagra Shiksha Abhiyan and Rs 733 crore has been allocated towards the Mid-Day Meal Scheme. Gujarat has allocated 14.1% of its total expenditure for education in 2022-23. This is lower than the average allocation (15.2%) for education by all states (2021-22 BE).



## HIMACHAL PRADESH

The state government has allocated an amount of **RS 8,669 CRORE** to education for the fiscal year 2022-23. Of which, Rs 314 crore has been allocated towards Sarva Shiksha Abhiyaan. Mid-day meal scheme has been allocated Rs 130 crore. Himachal Pradesh has allocated 18.9% of its total expenditure for education in 2022-23. This is higher than the average allocation (15.2%) for education by all states (as per 2021-22 Budget Estimates). As part of the plans, the Shreshth Shiksha Gunvatta Pratsahan Yojana will be introduced. Under this scheme, government schools will be ranked on the basis of their learning outcomes.

## TELANGANA

The state allocated 7.3% of its total expenditure for education in 2022-23. This is lower than the average allocation (15.2%) for education by all states (as per 2021-22 Budget Estimates). Its education budget is **RS 16,043 CRORE**. Rs 4,868 crore and Rs 4,434 crore have been allocated as assistance to local bodies for primary education and secondary education, respectively. The state's plans include establishment of the state's first women university and an outlay of Rs 100 crore has been proposed for the same. Establishment of medical colleges in all districts will also part of the plans.



**JHARKHAND**

The state allocated 15.3% of its total expenditure for education in 2022-23 fiscal year. This is similar to the average allocation (15.2%) for education by all states (2021-22 BE). The total education budget for the fiscal year is **RS 14,220 CRORE**. Of which, Samagra Shiksha got Rs 1,933 crore and the Mid-Day Meal Programme got Rs 655 crore. The fiscal year's plans include introduction of the Guruji Credit Card Scheme that aims to facilitate the availability of credit for students availing higher education. Further, the Marang Gomke Jaipal Singh Munda Trans-National Scholarship scheme will now be extended to students of Scheduled Caste, backward and minority communities.



**KARNATAKA**

The state allocated 12.9% of its total expenditure for education in 2022-23. This is lower than the average allocation (15.2%) for education by all states (as per 2021-22 Budget Estimates). Its total education budget is **RS 32,018 CRORE**. Of which, Rs 17,184 crore has been allocated towards elementary education. Rs 960 crore has been allocated for Mid-Day Meal Programme.



**KERALA**

The state allocated 14.8% of its total expenditure for education in 2022-23. This is lower than the average allocation (15.2%) for education by all states (as per 2021-22 Budget Estimates). Its total education budget is **RS 25,430 CRORE**. Of which, Rs 586 crore has been allocated towards Samagra Shiksha Abhiyaan. Mid-day meal scheme has been allocated Rs 584 crore.



**RAJASTHAN**

The state allocated 18% of its total expenditure for education in 2022-23. This is higher than the average allocation (15.2%) for education by all states (2021-22 BE). Its education budget is **RS 49,627 CRORE**. Of which, Rs 12,200 crore has been allocated to Samagra Shiksha Abhiyan. Rs 1,450 crore has been allocated to Mid-Day Meal Programme.



**TAMIL NADU**

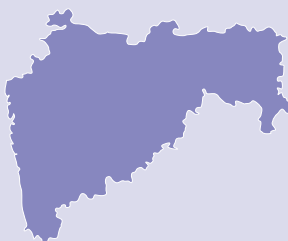
The state allocated 13.4% of its total expenditure for education in 2022-23. This is lower than the average allocation (15.2%) for education by all states (as per 2021-22 Budget Estimates). Its education budget is **RS 43,799 CRORE**. Government secondary schools and primary schools have been allocated with Rs 12,427 crore and Rs 11,246 crore, respectively. The state's major plans include the launch of 'Perasiriyar Anbazhagan School Development Scheme' to modernise government schools over next five years. A knowledge city will be developed through international collaboration. A new scheme will be implemented to improve infrastructure in government colleges and polytechnics.



### MAHARASHTRA

The state allocated 16.3% of its total expenditure for education in 2022-23. This is higher than the average allocation (15.2%) for education by all states (as per 2021-22 Budget Estimates). Its education budget is **RS**

**80,437 CRORE.** Of which, Rs 26,200 crore has been allocated towards assistance to non-government secondary schools and junior colleges.



### PUNJAB

The state allocated 13.2% of its total expenditure for education in 2022-23. This is lower than the average allocation (15.2%) for education by all states (2021-22 BE). Its education budget is **RS 15,654 CRORE.** Of which, Rs 4,472 crore has been allocated towards elementary education.

Rs 1,093 crore has been allocated towards university and higher education. The state's plans include opening of 16 new medical colleges over the next five years.



### ODISHA



The state allocated 13.5% of its total expenditure for education in 2022-23. This is lower than the average allocation (15.2%) for education by all states (2021-22 BE). Its education budget is **RS**

**24,994 CRORE.** Of which, Rs 3,581 crore has been allocated towards Samagra

Shiksha Abhiyan. Mo School Abhiyan and Odisha Adarsh Vidyalaya programme have been allocated Rs 646 crore and Rs 420 crore, respectively.

### UTTAR PRADESH



The state allocated 13% of its total expenditure for education in 2022-23. This is lower than the average allocation (15.2%) for education by all states (as per 2021-22 Budget Estimates). Its education budget is **RS 75,165 CRORE.** Rs 15,169 crore has been allocated towards primary education under Samagra Shiksha Abhiyan.

### UTTARAKHAND

The state allocated 18.2% of its total expenditure for education in 2022-23. This is higher than the average allocation (15.2%) for education by all states (as per 2021-22 Budget Estimates). Its education budget is **RS 10,896 CRORE.** Of which, Rs 3,515 crore has been allocated to government secondary schools. Rs 1,247 crore has been allocated towards Samagra Shiksha Abhiyaan.



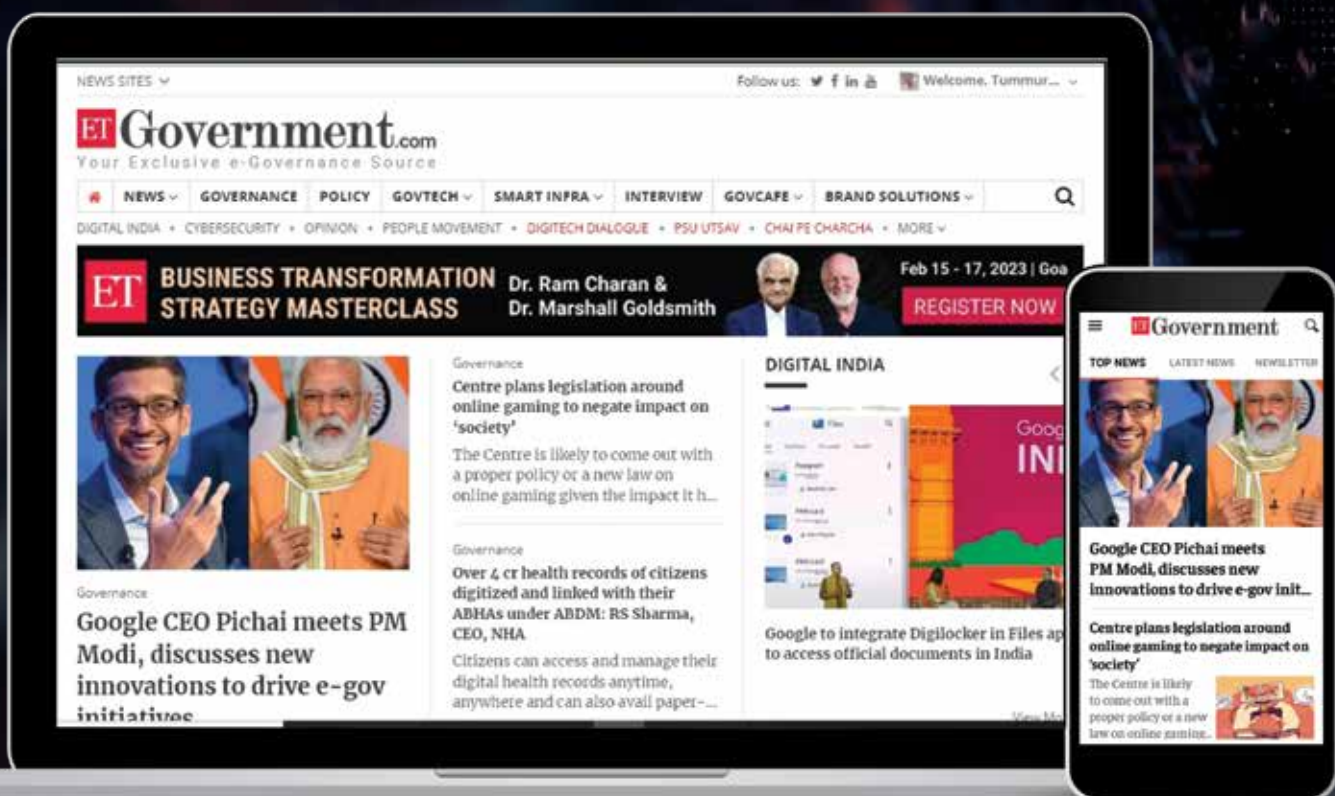
### MADHYA PRADESH

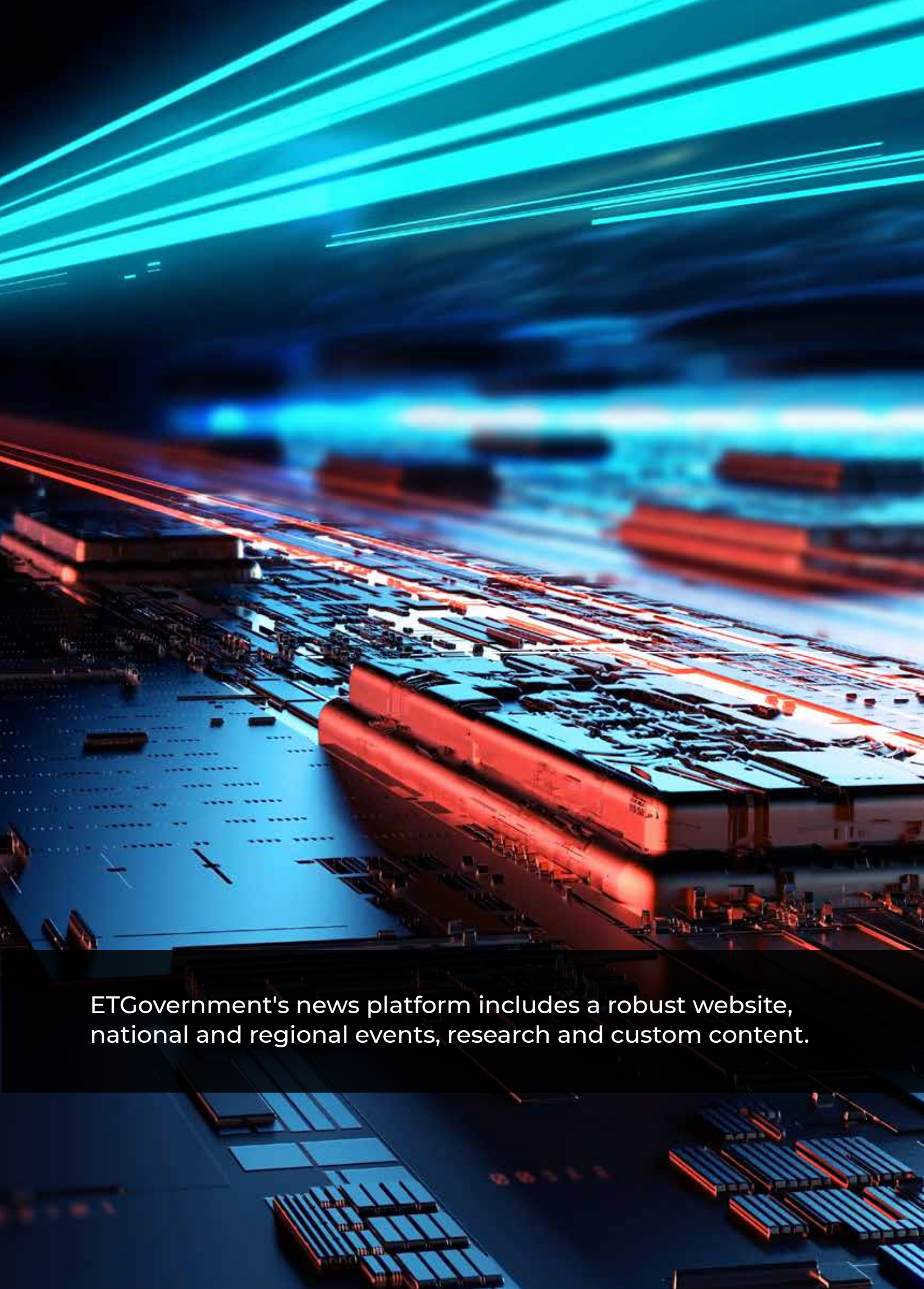
The state's education budget for the fiscal year 2022-23 is **RS 39,326 CRORE.** MP allocated 16.1% of its total expenditure for education in 2022-23. This is higher than the average allocation (15.2%) for education by all states (as per 2021-22 Budget Estimates). Of which, Rs 3,908 crore has been allocated towards Samagra Shiksha Abhiyan for school education. Rs 1,157 crore has been allocated towards CM RISE scheme. Major plans include to increase MBBS seats in the state from the existing 2,350 to 3,250 seats and setting up of 22 new medical colleges.

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Hon'ble Minister of State for Education  
Government of India



**Guest of Honour**  
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Hon'ble Member of Parliament, Lok Sabha  
Founder, Kalinga Institute of Industrial Technology



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