



**AKHIL BHARTIYA SHIKSHA  
SAMAGAM 2023**

**OUTCOME DOCUMENT OF THEMATIC  
SESSIONS**

**HIGHER EDUCATION**

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## **I. Introduction**

On 29<sup>th</sup> July 2023, NEP 2020 completed 3 years of existence. In the span of 3 years, several strides have been made in the Indian education system which have brought forward significant achievements and have incited positive change in universities/HEIs, industries, and students. In order to review the progress of the implementation of NEP 2020 and to celebrate the achievements that have resulted from it, Akhil Bharatiya Shiksha Samagam (ABSS), a national-level educational celebration event, was organized on 29<sup>th</sup> and 30<sup>th</sup> July 2023 at ITPO Convention Centre, Pragati Maidan in New Delhi. At the ABSS event, several panel discussions were organized which featured some of the biggest names and stalwarts from the fields that the panel discussions were addressing. This document has been prepared to provide a glimpse of the discussions held and future roadmaps to be able to understand and implement the NEP 2020 in a better and more effective manner.

## **II. Session Outcomes**

### **1. Thematic Session - Access to Quality Education and Governance - Higher Education**

#### **a) Name of the Panelists**

- (i) Professor Abhay Karandikar – Director, Indian Institute of Technology Kanpur (Chair)
- (ii) Shri Vikash Rastogi – Principal Secretary of Higher Education, Maharashtra
- (iii) Shri Ashank Desai – Managing Director, Mastek Limited
- (iv) Shri Vineet Nayar - Sampark Foundation

#### **b) Key discussion points**

The eminent speakers highlighted several key concerns, which included:

- (i) There are some challenges in access to quality education like disparities in access, significant variation in quality of teachers, assessment procedures, outdated pedagogy, and infrastructure.
- (ii) Effective use of technology and digitization has a significant role in access to quality education.
- (iii) There is limited interaction between academia, industry, and society which leads to academics happening in silos. The curriculums being taught are, therefore, not aligned with societal or industrial needs.
- (iv) NEP 2020 proposes providing autonomy to all HEIs in a gradual and staggered basis. With 1000+ universities and 45,000 colleges, the need for candidates at leadership level would see a steep rise in the demand for quality leadership which would be a huge challenge. The absence of a board would be detrimental to the functioning of such HEIs.
- (v) The efforts and initiatives undertaken in the State of Maharashtra towards ensuring quality education, particularly with reference to accreditation, autonomy, and capacity building of faculty. State also has a Scheme called 'Parisparsh' to guide the colleges for NAAC, NBA assessment. There are 150 colleges in higher education and 75 institutions in technical education which can act as

Mentor. One college is expected to mentor 5 to 7 colleges for NAAC or NBA assessment.

- (vi) “Empowered Autonomous Colleges” initiatives of Maharashtra enables the autonomous colleges besides setting syllabi, conducting examinations, and declaring results can also get their college logos inscribed in the degree along with the logo of the affiliating university, a step closer to degree awarding status, since the UGC Act doesn’t permit colleges to award degrees.
- (vii) Indian higher education in its current form imparts vertical-specific knowledge akin to the assembly line system, which is not suitable for the digital age, especially with the advent of artificial intelligence.
- (viii) India must aspire to be creative headquarter of the world and not service headquarter.
- (ix) Due to the focus on absorption of knowledge rather than application of knowledge, Indian graduates are facing issues in the job market as they do not possess sufficient practical skills. This has resulted in IT companies spending almost \$6 million to retrain their engineers.

### c) Suggested Way Forward

The following steps may be taken by the stakeholders involved in the higher education system:

- (i) To include Technology Adoption as one of the vertical for Higher Education Institutions. This includes use of ERP such as SAMARTH for administration and governance.
- (ii) There has to be a strong connection between Industry, Society, and Institutions by way of representation in the Boards of the Institutions.
- (iii) Focus on improving the quality of leadership for institutions.
- (iv) Autonomy for HEIs will be an important step to bring quality education, as autonomy is an inseparable element for quality. Institutions need much more freedom beyond academic autonomy, in order to compete internationally.
- (v) There has to be an ecosystem that builds leaders to govern the higher education institutions. Without the right persons at the top, providing quality education and implementation of NEP in general would be a challenge. Through capacity building of the leaders who govern the institutions, governance can be improved, and quality higher education can be achieved. The IIMs can play a crucial role in training the leaders who can lead the educational institutions and improve governance.
- (vi) The concept of Faculty Development needs to be institutionalized for capacity building of the faculties.
- (vii) Universities/HEIs should focus on improving the quality of education being imparted through the attainment of NAAC and NBA accreditation and guiding smaller institutes in the same. HEIs should move towards applying for autonomy and should focus on establishing an effective governance board.
- (viii) States can improve the quality of educational institutes by providing incentives to the best performing HEIs such as converting them into “empowered colleges,” that is, affiliated colleges with the autonomy to set their own syllabus. The degree

would be awarded by the university but would bear the seal of both the affiliated college and the university.

- (ix) States should be directed to set up steering committees to oversee the implementation of NEP and to create seamless interactions between multiple stakeholders.
- (x) Expand our CSR funding to all for-profit organizations who take interns. If they take interns from colleges, it will be considered as CSR funding. The moment that happens, because everybody wants backward integration, everybody wants ready to hire people, corporate sector will move to the education sector at a very fast pace and start absorbing interns and that will make it more relevant.
- (xi) There has to be innovation in how to teach. Unless we come with a dramatic way of teaching, we will suffer the consequences of having the same teacher, delivering the same knowledge, same way and the outcome will be the same. Therefore, innovation is required in pedagogy to find out new way of teaching so that outcomes are different compared to the outcomes we see today.

## 2. **Thematic Session - National Credit Framework (NCrF) and APAAR (Automated Permanent Academic Account Registry)**

### a) **Name of the panelists**

- (i) Dr. Nirmaljeet Singh Kalsi - Chairperson, National Council for Vocational Education and Training (NCVET) (Chair)
- (ii) Professor Anil Sahasrabudde - Chairperson, National Education Technology Forum (NETF)
- (iii) Dr S. Vaidhyasubramaniam - Vice Chancellor, Sastra University
- (iv) Professor Yogesh Singh - Vice Chancellor, Delhi University & Chairman, National Council for Teacher Education (NCTE)
- (v) Professor Dinesh Prasad Saklani - Director, National Council for Educational Research and Training (NCERT)
- (vi) Shri Abhishek Singh - Managing Director & Chief Executive Officer, Digital India Corp. & President & CEO, National eGovernance Division (NeGD)

### b) **Key discussion points**

The eminent speakers provided an overview of the NCrF and APAAR system along with policy vision and key milestones in its development. Along with an explanation of the systems, the speakers also addressed **concerns related to stakeholder onboarding, learning levels, and data privacy**. Some of the key highlights are:

- (i) NEP 2020 has provided constructive disruptions in education and skilling, with further amplification by the National Credit Framework (NCrF) which was notified by the UGC on 10th April 2023 and adopted by NCVET on 12th May 2023.
- (ii) The NCrF integrates learning and credits from School Education, Higher Education, Vocational Education and Experiential Learning to create multidimensional measurable progress matrix mapping 8 levels of skill by National Skills Qualifications Framework (NSQF).

- (iii) The National Higher Education Qualifications Framework (NHEQF) has been notified and revised by UGC with levels 4.5 to 8 in alignment with NCrf, with indicative learning outcomes mapped to each level. A High-Level Committee has been constituted to oversee speedy implementation of the same.
- (iv) The success of NEP 2020 and NCrf rests in giving unique APAAR student id for all students and creating an Academic Bank of Credits, where all certifications, credits earned are stored and shared with consent to other agencies.
- (v) An Automated Permanent Academic Account Registry (APAAR) has been initiated for students to encourage lifelong learning and expand the scope of Academic Bank of Credits for vocational education in convergence with NCrf. The APAAR design architecture is a common federated framework for Department of School Education and Literacy (DoSEL), Department of Higher Education (DoHE) and Ministry of Skill Development and Entrepreneurship (MSDE) with open Application Programming Interface (API) backbone exclusively for covering the entire education ecosystem. While APAAR provides answer to the question 'Who am I?' NCrf provides answer to the question 'What I Have achieved?' during the individuals educational life cycle.
- (vi) The sustainable and scalable usage of APAAR has been envisioned with multiple benefits for educational institutes and learners, such as capturing of anonymised data which can be leveraged for monitoring progress, planning and design of key interventions in districts to improve the quality of education. The open API registry with interoperable flow is encompassing:
  - a) Unified District Information System for Education (UDISE+) data of 26.52 Crore school students
  - b) All India Survey on Higher Education (AISHE) data of 3.74 Crore Higher Ed students
  - c) UDISE+ data of 109 lakh faculty
  - d) AISHE data of 55k+ universities
  - e) Skill India data of 4 Crore learners in 17k Pradhan Mantri Kaushal Vikas Yojana (PMKVY) Centres

### **c) Suggested Way Forward**

- (i) Recommendations of the High-Level Committee (HLC) and Sub- Committees for fast paced implementation of NCrf and removal of difficulties (report expected by 31.08.2023).
- (ii) Roll out of NCrf in current session 2023-24.
- (iii) Standardization/ adoption and registration in Academic Bank of Credits (ABC) / APAAR by all educational institutions and roll out of NCrf with APAAR & ABC.
- (iv) The APAAR IDs can be utilized in future for real time verifications for National Testing Agency (NTA) / Joint Entrance Examination (JEE) and other exams. The NCrf records can be utilized for all degrees and diplomas. Thus, the digital architecture of the systems will permeate to all forms of learning and assessment by students.

- (v) Institutes can consider hosting workshops and orientation for students to help them understand the Multiple Entry and Exit pathways available to them which would encourage them to register on the ABC portal.
- (vi) Leveraging the National Credit Framework and its multiple, non-linear pathways recognizing prior learning, to integrate both general & vocational education while ensuring mobility of candidates between the two systems.
- (vii) Design and deliver NCrf compliant courses and qualifications, through National Higher Education Qualification Framework (NHEQF) and National Skill Qualification Framework (NSQF) and National Curriculum Framework (NCF).

### 3. **Thematic Session - Equitable and Inclusive Education - Issues of Socio-Economically Disadvantaged Group (SEDG)**

#### a) **Name of the panelists**

- (i) Shri Saurabh Garg – Secretary, Ministry of Social Justice & Empowerment (Chair)
- (ii) Professor T V Kattimani – VC, Central Tribal University, Andhra Pradesh
- (iii) Shri Srijan Pal Singh – Founder, Dr. Kalam Foundation
- (iv) Shri B Kartikey – State Project Director, Samagra Shiksha, Bihar
- (v) Ms. Cynthia McCaffery – United Nations Children’s Education Fund (UNICEF) Representative in India

#### b) **Key discussion points**

The eminent speakers highlighted several key concerns, which included:

- (i) While measures are being taken under NEP 2020 to promote equitable and inclusive education at the level of higher education, there are challenges faced in terms of financing higher education, lack of support for SEDGs students in higher educational institutes and lack of placement support from higher educational institutes resulting in poor employability.
- (ii) Use of Indian Languages and digital technology can be key to well-being of the SEDGs.
- (iii) Tribals and Marginalised communities have skills that needs to be nurtured.
- (iv) There is need to focus on the ECCE to curtail dropout rate.
- (v) Some SEDG students may sometimes face challenges of discrimination along with geographical and linguistic barriers.
- (vi) There is a stark digital divide between urban India and rural India due to economic disparities, geographical challenges, language barriers, awareness about technology and gender and caste issues. Measures need to be taken to bridge the digital divide.
- (vii) Ed-Tech can help SEDGs by creating an immersive environment by mitigating cost and language barriers, provision constant power supply and internet

#### c) **Suggested Way Forward**

The following way forward way discussed during the session:

- (i). Measures to increase higher education enrolment for socio-economically disadvantageous groups (SEDG) by earmarking funds for outreach programmes and SEDG scholarships. The admission process needs to be made more inclusive,



and counselling and mentorship programs need to be introduced to increase SEDG enrolment rates and female student enrolment rates.

- (ii). Focus on improving and maintaining the quality of education as better quality of education will attract increased participation from SEDGs.
- (iii). Participation of the community and other stakeholders, in developing material for children with special needs, and gender equality in school education.
- (iv). The proactive role of communities, students, parents, and organisations in creating awareness and countering negative attitudes and stereotypes. Introducing Parent-Teacher Meetings as regular events and leveraging them to encourage community participation in children's learning experiences.
- (v). To bridge the digital divide, low cost-high quality solutions need to be provided at scale. These solutions need to be provided in local languages to overcome the linguistic barriers.
- (vi). While measures have been taken under NEP, there is a need for monetary impetus from the government to bridge infrastructural gaps at higher educational institutes for Divyang students and ensure access to laboratories and quality equipment / devices for learning.
- (vii). To make the educational environment conducive for students from SEDGs, HEIs should take measures to ensure their safety by mitigating any kind of student harassment and discrimination.
- (viii). Conducting Bridge Courses for SEDGs, setting up of Equal Opportunity Cells are some illustrative measures to address the issues of SEDGs.
- (ix). Strengthening teacher training programs with a focus on modern teaching methodologies, student-centred learning, and subject-specific knowledge. Encouraging continuous professional development with advanced pedagogical techniques
- (x). Making available contents in regional language for tribals and SEDGs.

#### **4. Thematic Session - Innovation & Entrepreneurship**

##### **a) Name of the Panelists**

- (i) Dr. Chintan Vaishnav - Mission Director, Atal Innovation Mission (Chair)
- (ii) Shri Deep Kalra - Founder and Chairman, Makemytrip.com
- (iii) Shri Hiranmay Mahanta - Chief Executive Officer, iHub Gujarat
- (iv) Professor Bharat Bhasker - Director, Indian Institute of Management Ahmedabad
- (v) Shri Jalaj Dani - Chairman of Board of Governors, Indian Institute of Management Tiruchirappalli

##### **b) Key discussion points**

The eminent speakers highlighted several key concerns, which included:

- (i) Start-up nations like Israel have 1 startup in every 1400 population, India has only 1 start-up in 14000 populations. We have approximately 1 Lakh start-ups in our nation for the population of 1.4 billion and this creates the hindrance in job creation, entrepreneurial environment, and economic growth.



- (ii) The largest volume of research in India is carried out by governmental bodies which is devoid of higher educational institutes and does not aid the job creation network.
- (iii) Practical knowledge, Purist education and research environment, if put in single pot can give magical results in “Innovation and Entrepreneurship” ecosystem
- (iv) Unwillingness to take risks which results in the stifling of innovation as donors are reluctant to provide funding to out of the box ideas.
- (v) Innovation and entrepreneurship are getting restricted to only the largest cities and urban areas as the funding for new ideas and start-ups are concentrated there, leaving the tier 2 and tier 3 cities with large chunks of population, out of the innovation ecosystem.
- (vi) There is need to support ‘Mind to Market’ journey for start-ups and entrepreneurship. The ‘Mind to Market’ journey typically refers to the process that takes a creative idea or concept from its inception in the mind of an individual to the point where it becomes a tangible product or service available in the market. This journey involves several stages, including ideation, validation, product development, testing, and ultimately bringing the product to market.

### **c) Suggested Way Forward**

The following steps may be taken by the various stakeholders involved in the higher education system:

- (i) Creating guidelines for long term internships (longer than 6 months) which can be done alongside academics in conjunction with the internship-embedded degree programmes that have already been introduced.
- (ii) Formulating intellectual property frameworks and recognition programmes to encourage more people to pursue innovative research and entrepreneurship.
- (iii) Formulation of courses (online or offline) on operational aspects of innovation and entrepreneurship such as product iteration, management, and finance.
- (iv) Establishing incubators and encouraging more students to take up innovation by means of providing mentorship and funding.
- (v) HEIs need to collaborate with industries interested in fostering innovation to secure funding for their students’ innovations.
- (vi) States should start recognising the innovation coming out of their HEIs through widespread rewards and recognition programmes. States also have an instrumental role in establishing research parks and promoting clustering of HEIs for optimum resource sharing within institutes to be able to support a larger number of innovators.

## **5. Thematic Session – Internationalization of Education**

### **a) Name of the panelists**

- (i) Professor M. Jagadesh Kumar – Chairperson, University Grants Council (Chair)
- (ii) Dr. Chandan Chowdhury – Senior Associate Dean and Practice Professor (Operations Management and Information Systems), Indian School of Business
- (iii) Prof. Rangan Banerjee – Director, Indian Institute of Technology Delhi
- (iv) Dr. Kamlesh Vyas – Deloitte

(v) Ms. Padma Srinivasan – Principal, Delhi Public School R.K. Puram

#### **b) Key discussion points**

The eminent speakers highlighted several key concerns, which included:

- (i) Four-pronged approach, viz. Indian HEIs setting up campuses abroad; Foreign HEIs setting up campuses in India; Collaboration between Indian & Foreign HEIs and International students in Indian HEIs, enhance Brand India for Higher Education.
- (ii) While increasing avenues for international exposure are available to students (through joint, dual degree, twinning programs, foreign exchanges, etc.), students will get opportunity to study in 'International Institutions' campus in India as regulations on establishment of foreign Universities campus in India is under finalisation.
- (iii) It is imperative to reduce the cost of innovation for HEIs in research, development, incubation to support our large talent pool in achieving higher quality of innovations and research outcomes, patents, citations, etc at par with global standards. India can position itself to be a global research hub with reduced piloting/commercialization costs and ample supply of talent.
- (iv) There is a significant cost associated with education abroad for Indian students. With an increasing need for globalized education, and change in aspirations of middle-class families, more and more students are pursuing education abroad in reputed institutions. To plug this requirement, foreign HEIs may be encouraged through targeted affiliations to set up campuses in collaboration with Indian HEIs and cater to students seeking niche learning opportunities.
- (v) Indian Universities also need to prioritize dedicated collaborations for promoting Indian Knowledge Systems (IKS) and offering indigenous multidisciplinary courses in collaboration with foreign HEIs.

#### **c) Suggested Way Forward**

The following steps may be taken by the various stakeholders involved in the higher education system:

- (i) Encouraging Indian institutes to collaborate with foreign institutes to offer joint/twinning/dual degree programmes, especially in subjects that have gained importance such as Data Analytics, Computer Science, and Climate Change and Sustainability-AICTE/UGC
- (ii) Increasing international collaboration in academic research by encouraging Indian institutes, especially institutes that have ranked in NIRF, QS and THE, to collaborate with international institutes of repute and jointly publish research papers and articles. Such arrangements will boost the reputation of Indian institutes in global rankings through improvement in the number of publications, citations, and the citation impact of Indian authors.
- (iii) Introducing global standards and global faculty to the Indian education system through targeted student and faculty exchange programmes, inviting international scholars as guest faculty and integrating international testing

standards and tests such as SAT, LSAT, GRE, and GMAT in the admissions process for Indian HEIs.

- (iv) More Indian HEIs should open campus abroad with major focus on countries having a sizeable diaspora and allowing foreign HEIs to set up campus in India to provide international exposure to Indian Students.
- (v) As more Indian students start embracing international schooling boards such as IB and Cambridge, Indian boards need to become more competitive and start integrating international norms and standards such as flexibility of curriculum, advanced subjects, and increased subject options. Student exchanges at the school level may also be explored.
- (vi) Industry-focused training in Indian universities through increased focus on vocational Education, internships, apprenticeships, and on-the-job training is needed to enable students to be prepared for the needs of Industry 4.0.

## 6. Thematic Session – Research & Development

### a) Name of the Panelists

- (i) Prof. Ajay Kumar Sood – Principal Scientific Adviser (Chair)
- (ii) Dr. K.K. Pant – Director, Indian Institute of Technology Roorkee
- (iii) Shri Sudarshan Jain – Secretary General of Indian Pharmaceutical Alliance, Mumbai
- (iv) Prof. Sudhir Kumar Jain – Vice Chancellor, Banaras Hindu University
- (v) Prof. Kumar N Sivarajan – Chief Technical Officer, Tejas Networks

### b) Key discussion points

The eminent speakers highlighted several key concerns, which included:

- (i) Limited number of deep-tech startups; research in Indian Higher Education Institutes is concentrated in IITs and IISc and there is a need to look beyond these institutes for research
- (ii) There is reduced participation in the research ecosystem by faculties and students at state universities, central universities, and standalone institutes, lack of infrastructure support, research culture and awareness about intellectual property
- (iii) Need for capacity development in tier-2 and tier-3 institutions, consortium approach where researchers across the institutions come together to deliver the research and development initiatives.
- (iv) Importance of IKS in the R&D and need for scientific validation of such initiatives.
- (v) Multi-disciplinary and interdisciplinary research, aligning R&D with SDG and need for gender parity in STEM
- (vi) Less than 5% of the population is tapped for research and development
- (vii) Centralised infrastructure facilities for resource pooling and sharing, need for strong linkage between industry and academia
- (viii) Need for clear demarcated vision for research focussed institutions and teaching universities.
- (ix) Researchers should engage in research for impact rather than doing research for credentials. Focus should be on quality of research rather than quantity.

- (x) Need for consistency over time and space in university governance, efficient intellectual property management and ease of transaction of academic administration for development of a sound research culture in the university ecosystem.

### **c) Suggested Way Forward**

The following steps may be taken by the stakeholders involved in the higher education system:

- (i) HEI's to leverage the funding under the National Research Foundation set up recently and also collaborate with the industry for research funding.
- (ii) Research talent in form of faculties and students are the most critical parameter for conducting research. Therefore, steps should be taken to attract the right talent through incentives and recognition initiatives should be a priority for any institute.
- (iii) Conducting research and building an ecosystem to conduct research ecosystem can be expensive. Higher Education institutes have high dependency on grants rather than generating alternative sources of funding of conducting research. There is a need to promote endowment culture of funding research to ensure government grants can be utilised in building a research ecosystem in central and state universities.
- (iv) There should be a connect between industry and academia to ensure the sharing of research talent and infrastructure wherein the institutes can secure funding from the industry and the industry can benefit from the skilled manpower being supplied by the institutes. This arrangement can benefit both the stakeholders in knowledge sharing and innovation.
- (v) Patenting of innovations ensures possible monetization of knowledge created and due credit to researchers for the same. Institutes should invest heavily and guide their faculty on the process of applying for and acquiring patents. This can lead to fund generation for institutes to do more research and serve as a motivating factor for the faculty.
- (vi) Promoting deep-tech startups by ensuring access to technology and sustainable funding.
- (vii) Centralized facilities to be developed for national level resource pooling and sharing, e.g., i- STEM. Also, resources required to maintain such facilities and equipment to be available across the country.
- (viii) Women participation in STEM is vital for advancement of research and the nation in general.
- (ix) HEIs may collaborate with industrial partners through existing region-wise government backed hubs such as Start-up India, S&T Clusters, etc, that encourage academic involvement for research and innovation to solve local problems.

## **7. Thematic Session – National Institutional Ranking Framework (NIRF)**

### **a) Name of the panelists**

- (i) Professor Anil Sahasrabudhe - Chairman, National Educational Technology Forum (Co-chair)

- (ii) Professor L. Radhakrishnan – Chairman, Standing Committee of IIT Council (Co-chair)
- (iii) Dr. Ram Sharma – Vice Chancellor, University of Petroleum and Energy Studies (UPES)
- (iv) Dr. Bhimaraya Metri – Director, Indian Institute of Management Nagpur
- (v) Professor K. Umamaheshwar Rao – Director, National Institute of Technology Rourkela

#### **b) Key discussion points**

Some of the key concerns highlighted by the eminent panelists were:

- (i) Currently, multiple agencies (like AICTE, NAAC, NBA, NIRF) responsible for approval, accreditation and ranking of Higher Education Institutes (HEIs), and their processes are carried out separately. Besides, these processes are considered cumbersome, time-consuming, and even subjective leading, many-a-times, to inconsistencies in the assessment of HEIs by different agencies. Presumably, the reported low levels of participation by the HEIs in this entire process, could be attributed to these factors. A set of transformative reforms are on the anvil to strengthen and streamline this process.
- (ii) Most of the faculty have to put in lot of effort in collecting and compiling data. Conducive environment must be ensured for faculty members by providing them autonomy and freedom thus empowering them to produce high quality research, instead of making them work under pressure.
- (iii) HEIs are unable to figure out the subjective parameters of the rankings and are hence, demotivated from participating.
- (iv) There are several inconsistencies and differences in parameters between the different rankings (QS/THE/NIRF) and HEIs find it cumbersome to apply and furnish information for different agencies.
- (v) NIRF ranking is more favourable for the universities, IITs and other large research institutions. Since IIMs focus more on case studies and high salary placements based on the job market demand, the faculty are involved more in teaching and corporate related courses rather than research. So, IIMs are not getting better rankings in NIRF.

#### **c) Suggested Way Forward**

Some of the ways to improve the ranking of Indian HEIs in global as well as NIRF rankings are:

- (i) HEIs to leverage the funding under the recently set up National Research Foundation and focus on receiving funding from a variety of other sources such as industrial collaborations resulting in consultancy fees, and international research grants from multilateral organizations. This will result in increased culture of research, enhancing their ranking in research parameters.
- (ii) The quality of research output and the public perception of the HEIs can be improved by recruiting accomplished faculty members and renowned researchers from India and abroad. This will also enable the HEIs to boost their score in

faculty-student ratio (FSR) which is an important parameter in several renowned rankings.

- (iii) HEIs must focus on increasing the number of publications from their institutes but also ensure that the research is of high quality and is not published in predatory journals. Another way to boost the research activity of the HEIs is to encourage them to host conferences, workshops, seminars, and symposiums.
- (iv) HEIs should encourage their faculty and researchers to patent their inventions and discoveries to protect their IPR and receive due credit.
- (v) Boost the perception of the institutes, increasing accessibility to the courses, especially through digital means such as MOOCs and e-degrees is imperative. - AICTE/UGC
- (vi) Rationalizing and removing the inconsistencies/differences in the different parameters
- (vii) Successful Implementation, functioning and dissemination of the idea of One Nation, One Data (common platform for collecting and sharing information).
- (viii) Top ranked NIRF institutions may be encouraged by States/UTs to mentor other HEIs through hub-and-spokes model and help to improve their facilities, effective utilization of resources, share best practices, quality education and research. The recommendations of the Dr. Radhakrishnan committee report on reforms in Approval, Accreditation and Ranking by way of creating a superset of data to be submitted once a year and same to be shared by other agencies through APIs be implemented on priority. AICTE/UGC

## 8. Thematic Session - Digital Empowerment and Capacity Building

### a) Name of the panelists

- (i) Professor V Kamakoti – Director, Indian Institute of Technology Madras (Chair)
- (ii) Professor Nageshwar Rao – Vice Chancellor, Indira Gandhi National Open University (IGNOU)
- (iii) Professor R Balasubramanian – Capacity Building Commission
- (iv) Shri Raghav Gupta – Managing Director, India & Asia-Pacific (APAC), Coursera
- (v) Shri Shankar Maruwada – Chief Executive Officer, EkStep Foundation
- (vi) Ms. Febin M.F. – Head, College Connect Business, Larsen & Toubro (L&T) Edutech

### b) Key discussion points

The eminent speakers highlighted several key concerns, which included:

- (i) Importance of digital platform in value addition and capacity building; adequacy of the National Digital Infrastructure in supporting digital ecosystem; potential of transformative technology like AI/VR in revolutionising pedagogy; role of internet in bridging the gap between learners and the courses they require; and effectiveness of existing guidelines.
- (ii) India witnessed an increased demand for online learning during COVID-19 pandemic and an increasing number of colleges and universities must partner with online learning platforms to cater to remote/digital learners through the comprehensive digital architecture being created by the Government of India through APAAR, SWAYAM, NDEAR, etc.



- (iii) While IGNOU is paving the way by taking its open and distance learning content online through SAMARTH and converting its regional offices to digital centres, other ODL Universities are also required to create a repository of online available courses with digital opportunities for assessment to improve their accessibility to Tier-2 and Tier-3 learners.
- (iv) Capacity building of educators, faculty, trainers on digital modes of content delivery needs to be carried out at mass scale in all universities through annual refresher and upskilling courses, along with additional tech modules and practicum in pre-teacher training courses as well.
- (v) The Karamyogi Mission serves as a pivotal opportunity to revolutionize the learner's mindset and approach to education. By instilling a KaramYogi spirit, learners can be empowered to take charge of their learning journey actively. This transformation goes beyond traditional academic knowledge and encompasses essential life skills, adaptability, and critical thinking. Moreover, for digital empowerment to be truly effective, it is imperative to shift the behaviour of public servants, breaking away from working in isolated silos.
- (vi) While content from Indian Universities on platforms like Coursera has had an outreach across 190 countries to 8.4 lakh learners overseas, our universities have to maintain this growth trajectory and continue aspiring for further internationalization and global branding. More and more universities must start offering their unique courses online through MOOCs to a global audience and position their niche content in an attractive manner.
- (vii) There is lack of focus on learning during the foundational years. There is need to teach learners how to learn, as this approach would contribute to creation of Nipun Bharat.
- (viii) Need to ensure responsible and constructive digital engagement to harness full potential of technology in education.
- (ix) While MSDE has identified IGNOU as a knowledge partner for implementation of Skill Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP), private players can also be onboarded by MSDE and MoE for contributing in capacity building trainings and content development and delivery for successful implementation and expansion of ongoing programs and schemes.

### **c) Suggested Way Forward**

The following steps may be taken by the various stakeholders involved in the education system:

- (i) Expand access to digital universities and develop high-quality teaching-learning resources in all formats, including print, audio, video, digital, AR, VR, etc. in all spoken languages, delivered easily through open digital platforms.
- (ii) Develop a national interoperable IT infrastructure for education integrated from preschool to higher education and skilling across India and develop a dynamic and adaptable assessment tool.
- (iii) Developing courses and curriculum to align with the digital advancement and in alignment with the emerging skill demands, enhancing learners' employability etc., in collaboration with the industry.



- (iv) Forge public-private partnerships with global technology leaders to train faculty and support digital integration in classrooms, enabling 'anytime, anywhere' learning. Industry- Academia linkages for development of industry aligned courses, exposure to real world challenges.
- (v) Leverage the private sector for large-scale high-quality, inclusive online content creation, such as multi-sensory input/output, and deliver through digital platforms/universities, such as DIKSHA / SWAYAM, e-Vishwavidyalaya.
- (vi) Build systems to track the learning journey of each student, in real time, and leverage this data to support faculty in dynamically adapting pedagogy.

## 9. Thematic Session – Capacity Building in Logistics Sector through PM GatiShakti National Master Plan

### a) Name of the Panelists

- (i) Professor Manoj K Tiwari – Director, National Institute of Industrial Engineering (NITIE) Mumbai (Chair)
- (ii) Professor S. G. Deshmukh – Indian Institute of Technology Delhi
- (iii) Shri Suresh Kumar R. – Managing Director, Allcargo Terminals Limited
- (iv) Shri Vikram Jaisinghani – Chief Executive Officer, Adani Logistics Ltd.
- (v) Professor Biswajit Mahanty – Indian Institute of Technology Kharagpur
- (vi) Professor Prasad Krishna – Director, National Institute of Technology Calicut
- (vii) Ms. Ruma Kishore – Director, Global Digital Transformation Customer Experience, Unilever

### b) Key discussion points

The eminent speakers highlighted several key concerns, which included:

- (i) Digital transformation is being embraced by organizations across industries including digitization of their logistics sector. A special focus is required in building the digital capability of workforce to reinforce the digitization journey.
- (ii) Emphasized the importance of NEP and PM Gati Shakti-National Master Plan on the country's economy, logistics, supply chain, and industrial growth.
- (iii) Need for a greater collaboration between the industry and academia at all levels of HEIs to provide solutions to industry problems and incorporate the same in the training curriculum.
- (iv) For the Logistics revolution, role of logistics in daily life needs to be popularized among the masses, particularly students from matriculation onwards.
- (v) A huge need for expertise and trained human resources for the Logistics Sector is required at multiple levels with different roles and responsibilities.
- (vi) Emphasis on the key role of digitization and the integral role of BISAG-N developed Geo-spatial technologies in moving towards a holistic and inclusive education system by connecting education with economic activity, driving growth and innovation, thus realizing the true potential of the vision of NEP and PM Gati Shakti National Master Plan.
- (vii) Importance of integrated infrastructure schemes under PM Gati Shakti National Master Plan through BISAG-N developed platform needs to be popularized through case study development. For example. demonstration of the initiative

with multiple Ministries and State Governments, such as Bharatmala, Sagarmala, inland waterways, dry/land ports, and UDAN will foster the infrastructure building throughout the country.

- (viii) There is a need for standard operating procedures and protocols which are currently not in-place. Due to lack of digitization and standardization, 80% of the fleet owners in road transport are operating at a small scale and are dependent on third-party booking agents.
- (ix) A special focus is also required to work on innovation, startups, and new business models.
- (x) NEP guidelines facilitate Academia - Industry interaction, students groomed effectively with industry expertise can handle operations and decisions of different kinds of movement of goods and services and become capable of solving real-world industrial challenges.

### **c) Suggested Way Forward**

The following way forward way discussed during the session:

- (i) Special focus is required to incorporate digitization in academic and training curricula in detail, which will help in transforming organizations at a massive scale. Using a similar concept, such as SAMARTH for ERP implementation, readymade and standardised information system may be made available for small organization with a scope of customization.
- (ii) To ensure holistic learning and building a capable workforce, industry and academia engagement is must. Policy support in terms of use of CSR in enhancing the academia-industry involvement may be extended to use for projects, internships, applied research, case studies etc.-
- (iii) Introduction of Logistics and Supply Chain Management as a subject in 10+2 is important to popularize as well as sensitize the students and through them, their family members.
- (vii) To ensure quality and affordable training to students and professionals in various multidisciplinary areas of logistics and supply chain management, the use of digital platforms and creating resources by best faculties, industry professionals, best foreign faculties in their respective domain are very important. The use of such resources along with evaluation need to be incorporated in curriculum.
- (iv) Application of BISAG-N portal in building infrastructure is another aspect that needs to be popularize. Access to explore this platform (Test Portal) may be given to HEIs to build various use cases and expand the applicability of this platform.
- (v) Fostering innovation and support to new business ideas that can drive entrepreneurship and lead to the emergence of startups in the logistics and supply chain sector.
- (vi) NITIE has taken the lead and designed the subjects like agri-food supply chain management, e-commerce supply chain, health care supply chain, humanitarian logistics, retail supply chain management, supply chain finance, sustainable supply chain, and many more. The other eminent institutes can offer the designed subjects as electives or regular subjects depending on the curriculum they are

having. Institutions can tailor these subjects as per the requirements of the departments and professors.

- (vii) Encouraging Indian institutes to collaborate with industry to offer specialised degree programmes, especially in subjects that have gained importance such as Data Analytics, multimodal logistics and Sustainable Supply Chain management to enhance capability in Logistics in the country.
- (viii) There are some other subjects which are equivalence to the designed courses, like transportation, Real-time Planning, Traffic Modelling, Route planning, Environmental Impact Assessment, Transport Safety Management, Construction Management, Oil and Gas Pipeline Management, Water Distribution systems, and Development of Urban areas including Town Planning.
- (ix) Institutions can offer more global courses in collaboration with Industry professionals and professors from India or outside India through MOOC, NPTEL, and SWYAM platforms. Continuing education courses can be offered.
- (x) It is a huge benefit to bring the actual industrial problems to the students through electives, internships, and projects. As per the guidelines of NEP 2020, as part of a holistic education, students at all HEIs will be provided with opportunities for internships with local industry. This in turn will lead to a more trained, skilled, and knowledgeable workforce who can take up the jobs with less difficulty and handle advanced tools and technologies. This way also, ease of doing business will be realized, and the efficiency of the logistics operation will improve. All this will lead to a reduction in the logistics cost.

## 10. **Thematic Session – Holistic Education through Integration of Skilling, Industry Connect and Employability**

### a) **Name of the panelists**

- (i) Dr. Anunaya Chaubey – Provost, Anant National University, Gujarat (Chair)
- (ii) Shri Satish Pradhan – ex-Head of Tata Group HR, Tata Sons Ltd.
- (iii) Shri Manish Sabharwal – Vice Chairman, Teamlease
- (iv) Dr. Abhay Jere – Vice Chairman, All India Council for Technical Education
- (v) Shri Narayanan Ramaswamy – Head, Education & Skill Development Practice & Partner, KPMG India
- (vi) Ms. Anjali Hans – President, Telecom Skill Sector Council (Sr. VP-Regulatory, Corporate Affairs, Vodafone Idea)

### b) **Key discussion points**

The eminent speakers highlighted several key concerns, which included:

- (i) Essence of holistic education is to understand the idea that the world is a complex place, made up of parts, which are inter-connected. Once the students acquire this understanding, they become more versatile, flexible, and productive. In the process, they gain new insights and analyzing skills. This also leads to better problem-solving abilities in students. Students would never be able to develop this understanding if the insistence on specialization, grades and jobs persists.
- (ii) There is need to strike a balance between supply side (academic institutions) and demand side (industry).

- (iii) There are three problem of supply side namely matching, mismatching and the pipeline. While matching related to connecting supply with demand, mismatching alluded to the issue of repairing supply for demand. Pipeline, on the other hand, dealt with preparing supply for demand. The three issues have a different perspective but each need to be considered together to appreciate the problem in its entirety and arrive at probable solutions.
- (iv) Financing any probable solution to improving employability through skilling and industry-connect, is the most critical issue that needs addressing.
- (v) our demographic dividend is producing employable age people of the same kind at a rate which is exponentially growing. There is a dire need to for employability and employment to find a demand and supply balance. This can happen only when all the stakeholders- policy makers, educators, and industry- work in tandem.
- (vi) Industry-institute partnerships for facilitating internship opportunities for student is an effort in the right direction but is currently limited to tier-1 colleges. The culture of such partnerships and MoUs need to be promoted to tier-2 and tier-3 colleges
- (vii) The base of the partnership between industry and education needs to be augmentation, wherein technology is brought in to augment human effort.
- (viii) Educational institutions are not viewing holistic education from a life-long learning perspective. These institutions do not consider the students as their long-term partners, but as customers. In contrast, the foreign universities view their students as long-term partners and stakeholders. This ensures the students have a positive connection with their educational institutes and are willing to go back for developing skills in future.
- (ix) Industry players are apprehensive of partnering with institutes or investing in student training programs, since cost of training is high, but student/employee retention rates are low.
- (x) Five models of engagement between academic institutions and industry include industry reaching out to academia; academic institutions reaching out to industry; industry build academic institutions; academic institutions incubate and build industries; and academia and industry come together and co-create value. Any solution, if done in a partial manner, would fail to provide desired outcomes.

### **c) Suggested Way Forward**

The following way forward way discussed during the session:

- (i) Encourage Industry to Institute and Institute to Industry cross-linkages: While HEIs and industry players are being encouraged to collaborate to foster industry-academia connect, measures need to be taken to facilitate and foster a conducive environment where industry players can set-up educational campuses and educational institutes can enter the industry
- (ii) Scale internship/apprenticeship embedded degree programs: While introduction of internship/apprenticeship embedded degree programs under NEP 2020 is an effort in the right direction, measures need to be taken to scale this initiative and ensure such programs convert into placement opportunities for the students

- (iii) Promote women's participation in skills training programme
- (iv) Adoption of comprehensive strategies for integrating future skills in the workforce and promote life-long learning. Development of real time and dynamic skill gap assessments with the help of rapidly evolving technological prowess like Big Data analytics, etc., to uncover skill trends at a very granular level.

## 11. Thematic Session – Indian Knowledge System

### a) Name of the Panelist

- (i) Prof. Raghuvendra Tanwar, Chairman, Indian Council of Historical Research (Chair)
- (ii) Prof. Ganti Suryanarayana Murthy, IIT Indore
- (iii) Shri Chamu K Shastry, Chairman, Promotion of Indian Languages
- (iv) Prof. Michel Danino, IIT Gandhinagar
- (v) Shri Gajanan Londhe, Samvit Research Foundation

### b) Key discussion points

Panelists highlighted several key issues, which included:

- (i) India's Knowledge System covers a widely diverse spectrum and includes not just our legacy and historicity in fields of science, medicine and so on but also draws attention to values and ethics as ways of life. This also includes concepts of inclusive governance such as the idea *Dharma* being the foundation of governance and polity.
- (ii) Attention was drawn to how Indian languages are necessary to grasp the full understanding of our ancient system of knowledge. India's languages are rich and advanced and the English language in many cases does not possess the explanatory equivalent words and grammar. Hence emphasis be given.
- (iii) It was considered important to devise mechanisms to integrate the IKS into contemporary knowledge and understanding. Infact the IKS be included in diverse streams of education.
- (iv) IKS education can be imparted throughout five stages of school education. The foundation of rootedness begins at home and extends to schools which involves immersive experiences that engage all senses of the child. It was emphasized on holistic development of children by integrating IKS into the educational journey to nurture a sense of connection to their heritage.
- (v) Focus on incorporating IKS into HEIs to nurture enthusiastic scholars. HEIs can contribute nurturing a generation of scholars deeply engaged in Indian Knowledge capable of innovative research and problem-solving.
- (vi) Encouraging fundamental and interdisciplinary research in IKS by offering research funding and initiatives, as IKS is potentially relevant to address present and future challenges.

### c) Suggested way forward

Some of the ways to embed IKS into the education system include:

- (i) Increasing learning opportunities for students via mandatory credit components, designing regional courses, online/ODL courses etc.

- (ii) Promoting teacher recruitment and training via specialized teacher training centers.
- (iii) Providing hands on learning opportunities like IKS Internships, Hands-on-workshops, Hackathons.
- (iv) Translation of academic content.
- (v) Promoting employment opportunities for youth through skill-based IKS programs, such as beautician and cosmetician training, Ayurveda-based dietician programs, and heritage technology solutions, aiming to capture 10% of the world tourism market thereby providing significant job opportunities.
- (vi) Research & innovation through national competition, hackathons and incentivizing new ideas and innovations that are inspired by the IKS.
- (vii) Engagement with national institutions like the Indian Council of Historical Research (ICHR), Indian Council of Social Science Research (ICSSR) and incorporation of IKS as a theme in ASEAN fellowships to foster collaborations among scholars.
- (viii) Producing, disseminating of IKS concepts into publishing and digital formats. This be designed both for the educational system and those beyond it.

### **III. Action Plan for Key Stakeholders**

#### **A. UGC/AICTE and other Regulatory Bodies**

1. Facilitate adoption of NCrF guidelines by HEIs. Monitor to ensure proper implementation of NCrF guidelines by HEIs.
2. Provide grants and monetary support to HEIs for setting-up enabling environment and infrastructure that is SEDGs & Divyang friendly.
3. Provide grants and monetary support to HEIs for leveraging digital infrastructure for imparting high-quality education to students.
4. Faculty Development Programs to be institutionalized for the holistic capacity building of the HEI's faculty
5. Set-up a conducive regulatory framework that makes it easy for industry-academia collaboration in design of curriculum, supporting research, innovation, startups, incubators, etc.
6. Formulate guidelines for long-term internships (more than 6 months) that can be carried out alongside academics.
7. Develop IP frameworks and recognition programs to attract more people to engage in innovative research and entrepreneurship.
8. Leverage National Research Foundation (NRF) for research grants and collaboration with industry for monetary support to HEIs for upgrading their infrastructure to set-up state of the art labs to promote a research culture.
9. Development of real time and dynamic skill gap assessments with the help of rapidly evolving technological prowess.
10. Promote digital universities and develop high-quality teaching-learning resources in all formats, including print, audio, video, digital, AR, VR, etc. in all spoken languages, delivered easily through open digital platforms.
11. Focus on development of new and innovative pedagogical approaches in alignment with the changing landscape of the learning.



12. Expedite the tasks aimed at making the contents available to the students in local languages.
13. Promote and facilitate introduction of courses in offline and/or online modes on the operational aspects of innovation and entrepreneurship.
14. Integrate the international testing standards in the admission processes of the Indian HEIs.
15. Facilitate HEIs in opening their campuses abroad with major focus on the countries with sizable Indian diaspora and ease the process for foreign HEIs to set up their campus in India.
16. Impart Leadership training programs in HEIs to improve the quality of leadership or governance
17. Creating policies and incentives to encourage higher female participation in academics, especially STEM subjects.
18. Creating centralised infrastructure facilities for resource pooling and sharing amongst different HEIs in close geographical proximity.
19. Rationalizing and removing the inconsistencies/differences in the different parameters used for determining ranks in NIRF
20. Successful Implementation, functioning and dissemination of the idea of One Nation, One Data
21. Develop a national interoperable IT infrastructure for education integrated from preschool to higher education and skilling.
22. Forge public-private partnerships with global technology leaders to train faculty and support digital integration in classrooms.
23. Access to explore BISAG-N may be given to HEIs to build various use cases and expand the applicability of this platform.
24. Facilitate and foster a conducive environment through policy changes where industry players can set-up educational campuses and educational institutes can enter the industry.
25. Scale internship/apprenticeship embedded degree programs.
26. Promoting teacher recruitment and training via specialized teacher training centers.
27. Engagement with national institutions like the Indian Council of Historical Research (ICHR), Indian Council of Social Science Research (ICSSR) and incorporation of IKS as a theme in ASEAN fellowships to foster collaborations among scholars.
28. Producing, disseminating of IKS concepts into publishing and digital formats along with translations into regional languages.

## **B. Universities/HEIs**

1. Mitigate opportunity costs and fees for pursuing Higher Education.
2. Make admission process and curriculum more inclusive.
3. Invest in upgrading institute infrastructure to make it Divyang-friendly.
4. Facilitate admission of SEDGs & Divyangs by providing guidance and counselling.
5. Offer a safe environment for all students by spreading awareness about the needs of SEDGs & Divyangs and strictly enforce all non-discrimination and anti- harassment rules.
6. Assist SEDGs & Divyang graduates to gain successful employment.



7. Forge public-private partnerships with global technology leaders to train faculty and support digital integration in classrooms, enabling 'anytime, anywhere' learning.
8. Incorporate SWAYAM, NPTEL courses as part of the course curriculum, thereby expanding the course offerings and enabling students to study remotely at their own pace.
9. Leverage technology to monitor each student's learning trajectory in real time and use this information to help faculty adapt pedagogy in real-time.
10. HEIs should foster an endowment culture for funding research so that government funding received can be used to support the development of a research community in state and central universities.
11. Attract top faculty and students for fostering the research culture by providing scholarships, getting accredited and improving university rankings.
12. HEIs should apply for accreditation to increase college standing in the eye of students and faculty alike.
13. Partner with international institutes for academic and research collaborations.
14. To introduce joint/twinning/dual degree programmes with foreign institutes.
15. Institutes to invite foreign faculty as guest lectures to expose global teaching learning process to the students.
16. Remove dependency on government funding and explore alternative methods of funding such as consultancy projects, international research grants, etc.
17. HEIs to boost their score in faculty-student ratio (FSR) which is an important parameter in several renowned rankings
18. Adoption of SAMARTH for streamlining administration and governance of the HEIs.
19. Affiliated/Constituent Colleges and Degree Granting Colleges should strive to upgrade itself into vibrant and multidisciplinary universities.
20. Adhere to the National Credit Framework (NCrF) guidelines and adopt to facilitate integration of credits earned by students in school education, higher education, and vocational & skill education.
21. Widen students' understanding about the Multiple Entry and Multiple Exit options available and relevant formalities and procedures as prescribed in the issued guidelines through workshops and orientation programmes.
22. Ensure NCrF compliance course modules for the students considering the NHEQF, NSQF and NCF guidelines.
23. Set up of Equal Opportunity Cells and introduce bridge courses for to SEDGs students increase their accessibility.
24. Establish incubation centre on campus to extend mentoring and funding support to budding student innovators and their scalable ideas. Also, partner with relevant industry to create a mechanism for forward linkage between them.
25. HEIs to recognize and reward the pioneering research initiatives.
26. HEIs to improve the quality of education by working towards achieving the autonomous status.
27. HEIs to take necessary steps to acquire the NAAC and NBA accreditation.
28. HEIs to apply for and acquire patents to protect faculty's intellectual property.
29. Incubate and mentor upcoming start-ups, especially deep-tech start-ups.

30. Collaborate with industrial partners through existing region-wise government backed hubs such as Start-up India, S&T Clusters, etc, that encourage academic involvement for research and innovation to solve local problems
31. Recruiting accomplished faculty members and renowned researchers from India and abroad.
32. Increasing the number of publications from their faculty and students.
33. Take initiative to host conferences, workshops, seminars, and symposiums.
34. Developing courses and curriculum to align with the digital advancement.
35. Offering the designed subjects as electives or regular subjects related to logistics and supply chain management.
36. Offering more global courses in collaboration with Industry professionals and professors from India or outside India through MOOC, NPTEL, and SWYAM platforms.
37. Providing opportunities to students for internships with local industry.
38. Increasing learning opportunities related to IKS for students via mandatory credit components, designing regional courses, and online/ODL courses.
39. Providing hands on learning opportunities like IKS Internships, Hands-on-workshops, Hackathons.

### C. States / UTs

1. Schemes need to be introduced to incentivise and recognize innovations of HEIs.
2. Setting-up research parks and encouraging clustering of HEIs for optimal resource sharing within institutes to support a greater number of innovators.
3. Policy support in terms of use of CSR in enhancing the academia-industry involvement may be extended for projects, internships, applied research, case studies etc
4. Establish 'State/UT Steering Committee' as an overseer of the implementation of the NEP.
5. Direct all HEIs within their jurisdiction to register on Academic Bank of Credit to facilitate the storage and transfer of academic credits earned by students.
6. Adopt measures to increase enrolment of SEDGs in the higher education through funding outreach programmes and instituting scholarships.
7. Formulating state-specific start-up policies and provide support in incubating start-ups with potential.
8. To focus on improving the quality of the education in HEIs by introducing measures for the attainment of NAAC and NBA accreditation by every institute.
9. Top ranked NIRF institutions may be encouraged by States/UTs to mentor other HEIs through hub-and-spokes model.
10. Promoting employment opportunities for youth through skill-based IKS programs, such as beautician and cosmetician training, Ayurveda-based dietician programs, and heritage technology solutions.

## IV. Monitoring Action Plan

- a) **At the university/HEI level**, each HEI should set their own NEP Monitoring Cells under the guidance of the Internal Quality Assurance Cell (IQAC). The NEP Monitoring Cell would be responsible for conducting quarterly reviews on the progress of the HEI in meeting the targets of NEP such as the requisite faculty-student ratio, number of online degrees offered, etc.

- b) **At the state level**, all states must focus on laying down annual targets for the HEIs to achieve. These targets should be set in consultation with a steering committee for the implementation of the NEP. If such a committee does not exist in the state, the states must establish so at the earliest. This steering committee will also be responsible for the monitoring and evaluation of the progress of the implementation of NEP.
- c) **A national-level tracking portal known as UTSAH (Undertaking Transformative Strategies and Actions in Higher Education)** has been established to monitor and evaluate the progress on the implementation of NEP 2020. State / UT Higher Education Departments can advise Universities / HEIs under their jurisdiction to update the portal quarterly. This data would be analysed for monitoring and evaluation purposes.