शिक्षा मंत्रालय
MINISTRY OF EDUCATION
सत्यमेव जयते

5ᵗʰ National Conference of Chief Secretaries on
"Human Capital for Viksit Bharat"

Concept Note for Sub-Theme 4
Higher Education: Knowledge Economy

Nodal Ministry/Department: Department for Higher Education, Government of India in collaboration with the Department of Agricultural Research and Education.

1. Introduction

The **5th National Conference of Chief Secretaries**, proposed for November 2025, is being convened at a pivotal moment in India's development journey. With the overarching theme, *"Human Capital for Viksit Bharat",* the Conference seeks **to strengthen Centre-State collaboration by identifying best practices and strategies for inclusive, sustainable development across regions**. One of its five pillars, "Higher Education: Knowledge Economy", is being led by the Department of Higher Education, Ministry of Education and the Department of Agricultural Research and Education.

Knowledge economy is not a new concept for India as it has always been the land of knowledge seekers and creators. From Aryabhata's mathematical innovations to Surya Siddhanta's astronomy and to the interdisciplinary learning embedded in Vedic traditions, education in India has historically integrated ethics, inquiry, and real-world application. Drawing from this legacy, the Government of India has continued to prioritize knowledge as a catalyst for national development through education reforms, research investments, and skill-building initiatives.

The National Education Policy (NEP) 2020 marks a major milestone in this journey, with its focus on flexible curricula, interdisciplinary learning, and integrated academic and skilling pathways. The theme of *"Higher Education: Knowledge Economy"* reflects this vision of building an innovation-led, future-ready economy by transforming India's higher education ecosystem. A knowledge economy thrives on research and innovation and skilled human capital, both of which are core attributes of higher education.

By aligning education, research, and industry requirements, India can unlock innovation, build future-ready skills, and accelerate inclusive, sustainable growth, paving the way for Viksit Bharat 2047.

The overarching aim of the *Higher Education: Knowledge Economy* pillar aims to transform India's higher education system as a key driver of national progress and global relevance. This includes: (1) Raising per capita income by leveraging research, innovation, and skilling, particularly in employment-intensive sectors like agriculture, (2) Preparing institutions and learners to thrive in a tech-driven, interconnected world and (3) Solving critical challenges through research-led innovation in areas such as climate change, health, agriculture and digital transformation.

These goals can be achieved by focusing on inter-linked strategic priorities such as preparing tech-ready human capital, promoting interdisciplinary learning, elevating State Public Universities (SPUs) to global standards, strengthening industry-academia collaboration, and the internationalization of education. Advancing these priorities will require robust and sustainable financing across the higher education landscape.

2. Current Situation

India is uniquely placed to become a global knowledge leader, **with over 65% of its population under the age of thirty-five** and a rapidly expanding higher education ecosystem. With more than **58,000 Higher Education Institutions (HEIs) catering to over 4.3 crore students**, these institutions are at the forefront for skilling the nation's youth. HEIs are not only shaping the workforce but are also driving innovation. Their role as both talent incubators and knowledge creators makes them central to India's knowledge economy.

To further catalyze this momentum, the Government of India has **established nine Research Parks**[i] at premier institutions and is **in process of setting up another thirteen**. To democratize research opportunities, the University Grants Commission (UGC) has issued guidelines on setting

up R&D cells in every HEI, with around **6,000 R&D Cells already been established**. Additionally, to foster a culture of research and innovation in the country, aligned with the Lab to Market philosophy, initiatives like the Anusandhan National Research Foundation (ANRF)[ii] and the Prime Minister's Research Fellowship (PMRF)[iii] reflect India's growing commitment to strengthening its research ecosystem. ANRF aims to fund high-quality, interdisciplinary research across institutions and foster a culture of discovery and innovation. The PMRF will award over 10,000 fellowships over the next five years to nurture India's brightest research talent and future thought leaders. Together, these efforts are building a strong foundation for a vibrant, future-ready knowledge economy.

Additionally, the **establishment of over 15,000 innovation councils**[iv] across HEIs is fostering a culture of entrepreneurship, applied research, and hands-on skill development, equipping students to solve real-world challenges. The flagship One Nation, One Subscription (ONOS)[v] scheme is democratizing access to global academic resources. With a continued focus on Research and Development, HEIs are steadily emerging as the backbone of India's research and innovation-led growth.

Complementing the growth in higher education, India has also focused on nurturing innovation from the foundational level. Over **10,000 Atal Tinkering Labs have been established** across 722 districts in the country, fostering a spirit of curiosity and creativity among school students. This dual emphasis on strengthening both school-level innovation ecosystems and higher education institutions lays the foundation for India becoming a knowledge economy.

In parallel, India is deepening its global academic footprint. Internationalization efforts such as the Study in India programme[vi], joint and dual degree offerings, and the entry of top global universities like Deakin University in GIFT City, Gujarat are positioning India as a preferred destination for learners and collaborators worldwide. Outbound engagement is also growing through international campuses of Indian institutions (e.g., IIT Madras in Zanzibar) and cross-border research partnerships. These developments are enhancing quality, promoting two-way mobility, and reinforcing India's ambition to become a global knowledge hub.

As the economy changes, higher education needs to align more closely with the skills needed in the workforce. Currently, 53% of graduates are employed in roles that do not adequately match their skill levels (Economic Survey 2024-25)[vii], pointing to a significant opportunity for better alignment between academic pathways and evolving industry needs. Sectors such as Electric Vehicle (EV), digital commerce, green energy, and advanced manufacturing are expanding rapidly, and institutions are actively embedding industry exposure into academic frameworks to match this growth.

The National Education Policy (NEP) 2020 has also set the tone for stronger industry-academia collaboration. To this effect, the UGC guidelines on Sustainable and Vibrant University-Industry Linkage System[viii] encourage HEIs to establish long-term partnerships with industry for collaborative research, internships, curriculum co-design, and placements. The All India Council for Technical Education (AICTE)'s Internship Policy[ix] has made internships mandatory for all technical education students, enabling industry exposure for them. Moreover, the guidelines on Apprenticeship Embedded Degree Programme[x] promote the integration of certified apprenticeships within degree programmes, ensuring learners gain industry-recognized practical experience alongside academic learning. These developments are further supported by a growing shift toward interdisciplinary learning, which encourages students to engage with emerging domains through a blend of technical, ethical, and contextual lenses, key for industries operating at the intersection of technology and society.

In the agriculture sector, the National Agricultural Higher Education Project (NAHEP), initiated by the Indian Council of Agricultural Research (ICAR) in 2019, has created a scalable model for

structured engagement in agricultural universities. These efforts are fostering internships, joint research, and innovation closely aligned with national priorities-making both HEIs and industry critical partners in India's socio-economic transformation. While greater public-private collaboration is still needed to match global R&D leaders, India's cost-effective innovation model holds strong promise, reflected in its 3rd rank globally in science and engineering publications[xi], 6th in patent applications[xii], and 39th position on the 2024 Global Innovation Index[xiii].

To unlock this potential and sustain innovation-led growth, India is actively preparing its human resources to thrive in a rapidly evolving, technology-driven world. National missions such as Skill India, IndiaAI, the National Quantum Mission, and sector-specific programmes like Semicon India and the BioTech and Deep Health Missions are equipping students with cutting-edge competencies. Agricultural HEIs are evolving in parallel, with ICAR and Centre for Advanced Agricultural Science and Technology (CAAST) integrating AI, robotics, and precision farming across 16 universities, embedding innovation directly into rural and food systems.

As this transformation accelerates, it is crucial to ensure that all HEIs across the country are equally developed and contribute optimally to nation building. This vision requires focused efforts that percolate to institutions at every level. SPUs, which serve over 80% of students in the higher education system, play a pivotal role in this process. While many SPUs have made measurable progress in access and research visibility, there is a need to strengthen these institutions through sustainable financing models and long-term institutional support. Agricultural SPUs are also uniquely positioned to contribute to food security, climate resilience, and rural innovation. With sustained investments in quality, governance, and global engagement, SPUs can emerge as inclusive engines of growth and vital pillars of India's knowledge-driven future.

3. Challenges and Issues to be resolved

While India's higher education system has made remarkable progress in expanding access, fostering innovation, and deepening global engagement, there are areas requiring to be further strengthened. Bridging systemic gaps across institutions, curricula, industry linkages, and governance will be essential to unlock the higher education ecosystem's full potential of fuelling a knowledge economy.

A. Preparing a Tech-Ready Human Resource

As India positions itself as a global technology and innovation hub, its higher education system must rapidly adapt to evolving skill demands, emerging technologies, and workforce expectations. Addressing the following challenges is essential to building a tech-ready, future-proof talent pipeline:

i. **Meeting the Rising Demand for Skilled AI Professionals:** AI and tech roles are outpacing training systems. As per the World Economic Forum's Future of Jobs Report 2025, 39% of key job-market skills are expected to change by 2030, with technological skills (AI, big data, cybersecurity) growing fastest highlighting that AI proficiency makes individuals more adaptable.[xiv]

ii. **Advancing Faculty Capacity in Frontier Technologies:** Faculty upskilling in frontier technologies, like AI, robotics, and quantum tech is essential. Upgrading labs and digital infrastructure will boost research and global skill readiness.

iii. **Adapting to Rapidly Changing Skill Requirements:** Sectors like EVs and carbon markets require interdisciplinary skills. Curricula need to evolve continuously to keep pace with technological shifts.

iv. **Enabling Lifelong Learning and Skills Recognition:** Lifelong learning needs formal pathways and skill-based recognition. Linking job growth to skill proficiency, not just tenure, will foster a future-ready workforce.

v. **Bridging the Gender Gap in Tech and Science Technology Engineering and Mathematics (STEM) Fields:** Despite growing opportunities, women remain underrepresented in emerging tech domains such as AI, robotics, and engineering. Enhancing participation will require targeted efforts in mentorship, scholarships, and workplace inclusion.

As technical specialization deepens, the interface between academia and industry is essential.

B. Strengthening Industry-Academy Collaboration

To better integrate academic output and industry needs, India's higher education system must strengthen its engagement mechanisms, align research with application, and build the institutional capacity required for sustained, outcome-oriented collaboration:

i. **Standard Engagement Templates:** Industry-academia collaboration requires to be promoted at every level in HEIs. A standard template will facilitate the institutions that are lagging in this endeavour.

ii. **Faculty Capacity and Curriculum Delivery:** After the introduction of new curricula and interdisciplinary learning, there is a need for capacity building to improve pedagogy, enhance practical tools, and create awareness about new knowledge sets for both new and existing faculty members.

iii. **Funding and Financial Architecture:** A sustainable financial model is key to ensure that core activities such as updating curriculum, training faculty, necessary infrastructure and engagement with industry partners happen consistently.

iv. **Technology Readiness Level (TRL):** Academia often focuses on early-stage research (up to TRL 4), while industry seeks near-ready solutions (TRL 8 and above). This TRL gap, which is discovery vs. application, hinders collaboration, with many Indian academic projects ending at the proof-of-concept stage, falling short of industry needs for tested, market-ready innovations.

v. **Commercialization of Research Initiatives:** Despite increasing research output, many academic innovations fall short of becoming viable market solutions. Key gaps include the lack of structured mentorship to help researchers refine ideas, understand user needs, and build practical solutions. There is also limited exposure to concepts like scalable models of prototypes/innovations, market size, and fundraising strategies. Further, many HEIs lack the networks or support systems needed to connect innovation with societal or industry needs.

Fostering interdisciplinary thinking and practice can help bridge the lab-to-market gap more effectively.

C. Promoting Interdisciplinary Learning

Enabling interdisciplinary learning requires a systemic shift in how institutions design curricula, assess outcomes, and structure internal collaboration. Moving beyond traditional silos will depend on building flexible ecosystems, empowered faculty, and forward-looking academic governance:

i. **Curriculum Design for Integrated Learning Pathways:** Traditional curriculum structures, though rigorous, often follow rigid disciplinary silos that limit holistic exploration. Introducing modular, theme-based, and project-oriented curricula can empower students to traverse domains and address real-world challenges.

ii. **Need to build enabling infrastructure for Interdisciplinary Ecosystems:** Delivering quality interdisciplinary education requires more than curriculum reform, it needs flexible learning spaces like labs, studios, research infrastructure, and digital platforms.

iii. **Need to modernize Assessment to Reflect 21st-Century Learning Outcomes:** Assessment mechanisms should evolve alongside pedagogy. Current models do not fully capture interdisciplinary learning outcomes.

iv. **Overcoming Departmental Silos to Enable Intra-Institutional Collaboration:** A major barrier to effective interdisciplinary education is the compartmentalization of academic departments within institutions. Most departments/faculties of HEIs continue to operate in isolation that restrict the optimal use of resources for fostering collaboration and integrating cross-disciplinary learning and research.

v. **Empowering Faculty and Institutions for Systemic Transformation:** Faculty and institutional leadership are central to the success of interdisciplinary education. However, many lack structured opportunities to build capacity in cross-disciplinary pedagogy and collaborative teaching.

Internationalization efforts can reinforce these reforms by embedding global perspectives into teaching and learning.

D. Advancing the Internationalization of Education

India's ambition to become a global education hub is gaining momentum, but realising this vision requires addressing persistent barriers related to perception, policy execution, infrastructure, and student experience-both within institutions and across systems:

i. **Branding and Perception:** India has transformed its higher education infrastructure drastically in the last decade. However, there needs to be greater focus on enhancing branding and outreach. Despite its rich academic heritage and diverse culture, perceptions about limited infrastructure and quality concerns persist among potential students and parents abroad. Improving this brand will not only enhance global visibility but also contribute to better performance in international rankings.

ii. **Cultural Adaptation and Support Infrastructure:** International students and faculty sometimes encounter challenges in adjusting to cultural norms, language differences, and administrative processes that differ from their home countries.

iii. **Internationalization of Indian Knowledge Systems (IKS):** India has a special opportunity to share its rich and ancient knowledge, from areas like philosophy, maths, medicine, yoga, and the environment, with the world. By integrating IKS in regular courses and research in a way that connects with today's global context, India can offer something unique to international students and HEIs. This can help promote cultural exchange, build stronger academic ties, and increase India's soft power around the world.

iv. **Financial Considerations and Access:** Internationalization requires adequate financial resources to support infrastructure, faculty development, scholarships, and international collaborations.

v. **Admission Processes:** International students often face challenges navigating India's admission system, especially regarding competitive exams, as they are primarily designed for Indian education system, reflecting curricula and standards that differ from the learning outcome of foreign applicants.

vi. **Global Research Presence:** There is a need to invest in robust research infrastructure, support faculty exchange, and take part in more international collaborations. This will help raise India's visibility in global research and deepen its role in solving shared challenges.

vii. **Regulatory Coordination and Implementation:** India has implemented policies to promote internationalization, including opening of foreign university campuses, joint degree programs, twinning etc. To further streamline procedural challenges, tailored regulations and active state government involvement in logistics, transport, and administration are essential for seamless academic mobility and collaboration.

While the above challenges focus on global visibility and collaboration, the imperative to elevate quality and relevance is even more urgent in State Public Universities, which educate over 80% of India's higher education students. Ensuring that learners in these 500+ institutions receive globally benchmarked education is key to achieving nationwide impact and inclusive growth.

E. Elevating State Public Universities (SPUs) to global standards

As the backbone of India's public higher education system, SPUs need to overcome deep-rooted structural and capacity constraints. Unlocking their potential requires coordinated efforts in faculty recruitment, infrastructure modernization, governance reform, and stronger links with industry and global partners:

i. **Faculty Recruitment and Development:** There exists a tremendous opportunity to strengthen faculty capacity through timely recruitment and talent development initiatives.

ii. **Infrastructure Improvement:** There is scope for modernizing infrastructure and enhancing research facilities, through upgradation of classrooms, laboratories, and digital tools.

iii. **Research and Global Collaboration:** There is a felt need to upgrade institutional frameworks to support cross-disciplinary collaboration and global engagement. Strengthening research facilities and fostering national and international partnerships through joint programmes, exchanges, and academic networks can enhance innovation, visibility, and relevance in a global context.

iv. **Sustainable Funding and Financing Models:** Over 85% of SPU budgets are directed towards salaries and pension, limiting innovation and infrastructure growth. Diversifying revenue beyond government grants and streamlining research funding access can enhance financial resilience.

v. **Strengthening Institutional Leadership and Governance:** Strong and responsive leadership is key to unlocking the full potential of HEIs. Clearer governance structures, streamlined decision-making, and robust internal quality systems can make academic processes more efficient and outcome-focused. Providing greater autonomy and fostering integrated leadership, especially in specialised institutions like agricultural universities, can support long-term planning, innovation, and academic excellence.

vi. **Employability with Industry Collaboration:** With less than 25% of SPUs having active industry ties, expanding partnerships can enhance curriculum relevance through co-design, internships, and faculty exchanges.

While India's higher education system holds immense promise, unlocking its full potential has scope of improvement in capacity and execution. From preparing a tech-ready workforce to elevating SPUs, the challenges span curriculum reform, faculty development, industry collaboration, global integration, and institutional governance. These are not isolated issues, but interconnected levers essential to transforming higher education into a true engine of innovation, inclusion, and global relevance.

As we move forward, addressing these systemic challenges through targeted, state-led interventions and collaborative frameworks will be vital. The following section outlines key areas of deliberation and possible pathways to unlock the full potential of higher education in driving India's knowledge economy.

4. Possible Solutions/Key Issues for Deliberation

The stakeholder consultations may deliberate on the following points to find solutions for the above-mentioned challenges:

i. **Development of a Template/Framework for Industry-Academia Partnerships**
   a. Formulating a national/state-level template to guide partnerships between industry and academia, involving governance models, accountability, and performance indicators.
   b. Ensuring adaptability to local industrial ecosystems and technological trends.
   c. Conducting a thorough pre-assessment, clear projections, and a well-defined timeline with expected outcomes.
   d. Opening of industry-led centres or departments within HEIs, where collaboration with industries can facilitate development and delivery of market relevant courses.

ii. **Driving Research Excellence and Academic Innovation**
   a. Developing Centres of Excellence (CoEs) and Research and Innovation parks within SPU clusters to lead global research collaborations and publication in top-tier journals.
   b. Building dedicated tech and AI Skill centres focused on AI, ML, data science, and other frontier technologies.
   c. Introducing targeted fellowships and research grants for students to pursue multidisciplinary research aimed at solving complex, real-world problems.
   d. Launching global talent return programmes to attract Indian researchers and academicians from abroad through fellowships and visiting appointments.

iii. **Creating Translational Research Zones (TRZs) and State Innovation Anchors**
   a. Bridging the Technology Readiness Level (TRL) gap by enabling SPUs to collaborate with industry and state innovation councils in developing shared Technology Readiness Zones (TRZs).
   b. Establishing spaces for testing, validating, and piloting innovations beyond proof-of-concept (TRL 5-7), while de-risking technologies, attracting co-investment, and enabling joint IP ownership for scalable commercialization.

iv. **Formulating a Strategic Roadmap for Interdisciplinary Education at every level**
   a. Deliberating on the development of a comprehensive roadmap to institutionalize interdisciplinary education across HEIs, in alignment with the NEP 2020.
   b. Establishing interdisciplinary "Innovation Sandboxes" within universities to solve real-world challenges.
   c. Catalyzing Interdisciplinary Tech-Innovation Ecosystems in State Universities.
   d. Initiating structured consultations with universities, faculty bodies, industry experts, and regulatory authorities to co-create interdisciplinary programme frameworks tailored to national priorities and regional requirements.

v. **Agri-Tech Skilling and Reforming Agricultural Universities in States**
   a. Enabling Agricultural Universities (AUs) to take the lead in new areas like climate-smart farming, and precision agriculture.
   b. AUs can partner with industries to develop training models that are rooted in local needs.

vi. Creating Systems to Track Emerging Job Trends and Offering Reskilling and Upskilling Programs for Working Professionals
  a. Enabling HEIs to act as 'skill observatories', collecting data on changing job trends and helping governments and industries adjust training programs accordingly.

vii. Developing a Single Window Database for Agriculture-Industry Linkages
  a. Creating a centralised database to better connect industries and MSMEs in the agricultural and allied sectors.
  b. Integrating information on skill needs and qualification packs for job roles to facilitate scalable academia-industry collaboration, and leveraging this platform to streamline communication, and match talent demand with supply.

viii. Building World-Class Governance and Leadership in SPUs
  a. Formulating and adopting State-specific Higher Education Vision @2047 that aligns with national education policies and schemes in ways that match contextual priorities on the ground.

ix. Sustainable financial models for SPUs
  a. Establishing State Higher Education Finance Agencies (State HEFAs) to provide competitive financing for world-class infrastructure and labs in SPUs.
  b. Institutionalizing revenue diversification through industry-relevant self-financed programmes, strategic alumni contributions, etc.
  c. Creating policy enablers to attract CSR funding and exempt SPU research activities from commercial taxation and utility tariffs.
  d. Monitoring outcome metrics such as number of interdisciplinary degrees launched, percentage increase in SPU research citations, number of joint patents filed, international student enrolment etc.

x. Customizing Admission Processes for international students
  a. Developing alternative admission pathways for international students, such as tailored entrance criteria or bridging programmes.
  b. Strengthening institutional support through Offices for International Affairs at every HEI to provide pre-arrival guidance, onboarding, and ongoing assistance.

xi. Enhancing Global Branding of Indian Education
  a. Promoting India as a preferred study destination through coordinated branding efforts, alumni networks, and showcasing the diversity and affordability of academic offerings.
  b. Deliberating on building a unified Study in India brand with digital platforms, country-specific outreach strategies, and collaboration with embassies.

xii. Promoting Global Higher Education Corridors (GHEC)
  a. Exploring the development of integrated education zones where industry bodies, research parks, and campuses of foreign HEIs can co-exist and collaborate.
  b. Deliberating on mechanisms for land allocation, shared governance models, and incentives for participation.
  c. Discussing lab-to-market pathways, incubation infrastructure, and replicable pilot models at state or regional levels.

It is important to mention that to address the challenges of the education ecosystem, several initiatives have been undertaken by the Government of India. These include NEP 2020, NCrF, regulatory provisions issued by UGC and AICTE, schemes like SWAYAM, SWAYAM+, KAPILA, NATS, ONOS, PMRF, SPARC, GIAN etc., and establishing institutional support like

AI Centres of Excellence (CoE), Anusandhan National Research Foundation (ANRF), Research and Innovation Parks, etc. Further, the State Governments have also taken many initiatives in this direction, including those aimed at creating a technology-ready workforce and fostering stronger Industry-Academia linkages. Accordingly, the deliberations and suggestions should factor in the existing policies and interventions while also identifying new interventions that may be undertaken in alignment with the existing national policies and state-level initiatives. Establishing State Implementation Task Forces can further play a key role to ensure coordinated execution, effective monitoring, and alignment of emerging interventions with both national and state-level education priorities. The same maybe explored during deliberations.

5. Way Forward

To strengthen India's knowledge economy, a synergic effort is required with centre and states coming together to build a future-ready higher education ecosystem. This includes establishing AI Skill Centres, Centres of Excellence, and deep-tech hubs, while scaling faculty development and reskilling programmes through robust industry-academia partnerships. Strengthening SPUs as regional innovation anchors through interdisciplinary curriculum, skilling integration, and translational research zones, could align learning with real-world challenges and emerging job trends.

Institutional capacity needs to be enhanced through sustainable financing models and standardized collaboration frameworks. Agricultural universities need to be modernized and aligned with global benchmarks to lead in agri-tech and food security. Further, streamlining admissions for international students, and strengthening India's global education brand could boost international collaboration and mobility.

These efforts will position states to drive world-ready talent, research excellence and innovation-led growth through higher education-advancing the vision of Human Capital for Viksit Bharat.

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Endnotes

[i] Dedicated facilities set up at leading institutions like IITs and IISc to promote R&D, industry collaboration, and startup incubation through shared infrastructure and co-location with corporate partners.

[ii] An apex research body operating under the Department of Science and Technology (DST), Government of India, to provide high-level strategic direction for research, innovation, and entrepreneurship across natural sciences, engineering, environmental science, health, agriculture, and social sciences, in line with NEP 2020.

[iii] Supports exceptional PhD scholars in science and engineering with fellowships and research grants to drive cutting-edge innovation.

[iv] A unit in higher education institutions that promotes innovation and entrepreneurship through support and collaboration.

[v] Provides nationwide access to high-impact international research journals and articles, empowering students, faculty, and researchers across publicly funded institutions to advance knowledge, innovation, and self-reliance

[vi] A Government of India initiative that aims to attract international students by showcasing India's academic strengths, cultural diversity, and affordable, high-quality education.

[vii] https://www.indiabudget.gov.in/economicsurvey/doc/echapter.pdf

[viii] https://www.ugc.gov.in/pdfnews/4915310_Sustainable-and-Vibrant-University-Industry-Linkage-System.pdf

[ix] https://aicte-india.org/sites/default/files/AICTE%20Internship%20Policy.pdf

[x] https://www.aicte-india.org/sites/default/files/Final%20Draft%20guidelines%20TE-AEDP.pdf

[xi] https://ncses.nsf.gov/pubs/nsb20221

[xii] https://www.wipo.int/edocs/pubdocs/en/wipo-pub-941-2024-en-world-intellectual-property-indicators-2024.pdf

[xiii] https://www.wipo.int/web-publications/global-innovation-index-2024/assets/67729/2000%20Global%20Innovation%20Index%202024_WEB3lite.pdf

[xiv] https://reports.weforum.org/docs/WEF_Future_of_Jobs_Report_2025.pdf