

# Resource needs for NEP 2020 Implementation

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BY

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# Challenges in Implementation

- **Resistance to Change**
  - Many **traditional institutions and educators** are hesitant for skill-based education.
- **Infrastructure and Resources**
  - Effective adoption of **NCrF** requires significant **upgrades in HEIs**, including better **digital infrastructure, laboratories, and vocational training centers**.
- **Faculty Training**
  - The **paradigm shift in teaching methodologies** necessitates extensive **faculty development programs** to train educators in **multidisciplinary teaching and practical skill development**.
- **Assessment and Evaluation**
  - Developing a **fair and standardized system** to assess **internships, vocational skills, and experiential learning** remains complex and challenging.
- **Social Equity and Accessibility**
  - Ensuring **equal access** to these reforms for **marginalized communities and students in underfunded institutions** is crucial for an **inclusive education system**.

# Way Forward

- **Enhancing Institutional Capacity**
  - HEIs must **invest in infrastructure and faculty training** to support flexible and multidisciplinary learning.
- **Public Awareness and Engagement**
  - Awareness campaigns should highlight the **long-term benefits of NEP 2020** to encourage acceptance among **students, educators, and parents**.
- **Industry-Academia Collaboration**
  - **Stronger partnerships between HEIs and industries** can ensure **curriculum relevance and better job market integration**.
- **Ensuring Inclusivity**
  - Special initiatives should **prioritize access for disadvantaged students**, bridging gaps in education and employability.
- **Continuous Adaptation and Monitoring**
  - Institutions must **regularly review and adapt** to evolving **technological and labor market trends** to ensure **sustained educational excellence**.

# New paradigm of learning as per NEP

- Learning any where
- Learning any time
- Multi learning choices
- Life skill learning
- Learning for life long
- Learning for interdisciplinarity
- Learning for global interaction
- Learning for transforming India as Vishwa Guru

# Student Engagement

- job
- higher education
- research and innovation
- Entrepreneurship
- startup and productization
- Societal connect

# Defining the Law Of Resources

The Law of Resources tells us that innovation requires a long-term and protected commitment of resources. The extent to which a university or an organization dedicates its resources directly reflects the importance that top leadership places on innovation.

- In many places When things get busy and the budget gets tight, innovation is moved to the back burner. But, if a university wants to be truly innovative and a leader in its industry, they need to commit a baseline of resources at all times—not just when it's easy.

# Manpower for Research

- Adequate, qualified, trained, well-oriented and specialized manpower is needed in the right numbers to run the research centers and carry out research in identified thrust areas.
- For developing such manpower courses related to research, methodology needs to be incorporated into the UG and PG curriculum at college as well as university levels so as to develop a research culture and harness a research temperament among our students and scholars. Even at the school level curriculum should be inquisitive enough to promote creativity, critical, analytical and innovative thinking among our students who in later course of their life could emerge as ace researchers.
- Specialised training needs to be imparted to the selected manpower on need-basis depending upon the prioritized thrust areas of research identified by the experts.

# Policies for Research

- A comprehensive, goal-oriented and focused research policies at the institutional, regional/state levels as well as the national level for enhancing research and promoting research quality in tune with fast changing global trends. Such policies should be contextual and need-based and address the most intriguing problems faced by our society.
- As envisaged in the National Education Policy, 2020 we need to develop research universities and autonomous colleges for carrying our intensive research on thrust areas identified by the experts. Such policies should be evidence-based and practiced and implemented in a time-bound manner.



# Infrastructure for Research

- need to develop our research infrastructure for enhancing our research and improving our research quality drastically.
- identifying and establishing research institutes and research centers within those institutes that are capable of undertaking high quality research.
- Besides adequate, trained manpower, these centers need to be fully equipped with sophisticated instruments required to conduct high-end research, databases that are required to undertake systematic literature reviews, meta-analyses, access to literature through databases like Scopus, Science Direct, Pubmed, Medline, Toxline etc

# **funds for research and Innovation**

- Innovation cannot happen without dedicated funds that allow each stake holder to bring their ideas to life. This means an appropriate percentage of your budget should be set aside to further innovation.
- Funding for Research One of the most important requirements for research is the availability of adequate funds. We need to explore possibilities of funding for our research at regional, national and international levels through public institutions, private industries, Non Governmental Organisations (NGOs) as well as through opportunities for publicprivate partnership

# The Time

- Another resource that is crucial for supporting innovation is time. You may not recognize time as a resource. In fact, you may not think very much of time at all, except as something that there is never enough of. Because of this, the mentality of “do what you can, when you can” started to take over, forcing innovation to take place outside of the normal 9 to 5.
- A business that prioritizes innovation will build in time for its most valuable personnel to think, create, design, and develop new and progressive services, products, or processes. This means blocking off several hours every month, or even every week, for your employees to focus on creative endeavors.

# The Equipment

- The Law of Resources also calls for universities to allocate equipment for innovation. without it, innovative ideas can never be carried out or tested.
- This equipment, whether it is software or hardware, is likely being used for other purposes. If an employee is not engaged in a project assigned to them, they are often discouraged from using workplace equipment or may not have access to it. Sometimes, even if a company allows its team members to use the equipment for innovative projects, it is only possible to do so when the equipment is not being used for something “more important.”
- to see innovative ideas cultivated by their staff should consistently set equipment aside for that specific purpose.

# Flexible learning

- Flexible learning courses allow for online access to your course materials, lectures, tutors and fellow cohort. You'll have 24/7 access to all your course content online, so you can download and read, watch, listen, and learn at a time and place that suits you.
- Flexible learning promotes student engagement and interaction through a range of digital content formats and channels, including:
  - Video tutorials
  - Webinars
  - Podcasts
  - Online discussion boards and forums
  - Social media groups

# Flexible learning

- Collaborate and network with students from around the world
- In a flexible learning course, your classmates won't be restricted to those sitting next to you in a classroom – your cohort will be students from all around the world.
- This means you'll gain exposure to a diverse range of unique insights, perspectives and experiences, giving you a truly global learning experience.
- As you build connections with your cohort and tutors throughout your time on the course, you'll also gain the opportunity to expand your global professional network – helping you to stay connected to global career opportunities throughout your career.

# Infrastructure for learning beyond the classroom

- Infrastructure for student activities various clubs
- Quality library
- Sports field
- Interaction with society . Extension and engagement
- Centres for cultural development
- Creating learning and hand on disruptive technologies
- Infrastructure for cocurricular learning

# Library resources

- [Bibliographies](#)
- [Citation Help](#)
- [Databases](#)
- [Dictionaries](#)
- [Dissertations and Theses](#)
- [E-Book Collections](#)
- [E-Journals A-Z](#)
- [Encyclopedias](#)
- [Job Resources](#)
- [Library Catalogs](#)
- [Maps](#)
- [News and Newspapers](#)
- [Statistical Resources](#)



# Empowering the Connected Campus

- The demand for robust, high-speed Wi-Fi for campuses has become a cornerstone of modern university infrastructure. As educational institutions embrace digital learning tools, online resources, and smart campus technologies,
- These challenges stem from the complex nature of academic environments and the diverse needs of students, faculty, and staff.
- Handling multiple users and devices simultaneously
- A large number of students, faculty, and staff accessing the network simultaneously. This creates a significant strain on network resources, requiring robust infrastructure to maintain performance.
- Diverse range of devices, from laptops to smartphones to IoT devices. Each device type has unique connectivity requirements, necessitating a flexible network architecture.

# Ensuring consistent coverage across sprawling campus areas

- Multiple buildings with varying layouts and construction materials. Different building materials can affect signal propagation, requiring careful planning for access point placement.
- Extending coverage to outdoor areas presents additional challenges, such as weatherproofing equipment and managing interference.
- Managing varying bandwidth needs for different campus activities
- High bandwidth demands for online lectures and research activities.
- Streaming services and social media usage during non-academic hours

# Balancing security and accessibility

- Protecting sensitive academic and personal data
- Providing easy access for students and visitors
- Managing network congestion during peak times
- Events like course registration or exam periods can cause sudden spikes in network usage.

# Cost Considerations for Universities

- Implementing a campus-wide Managed Wi-Fi solution requires careful financial planning. Reduced operational complexity
- Streamlined management processes that minimize the need for extensive in-house IT resources. This reduction in operational overhead can lead to significant cost savings for universities.
- Scalability to accommodate changing needs
- Flexible plans that can grow with your institution, avoiding costly overhauls. Scalability ensures that universities can adapt their network infrastructure without incurring excessive costs.
- Pay-as-you-grow model
- Cost-effective approach that allows universities to scale their Wi-Fi infrastructure as needed. This model aligns costs with actual usage, preventing over-investment in unused capacity.

# Exploring Tomorrow's Trends

- Smart device integration for enhanced campus services
- Location-aware applications improving navigation and resource access
- Data-driven network optimization for consistent performance
- Remote management capabilities for flexible IT operations
- Advanced Wi-Fi standards supporting more devices in busy areas
- Insightful analytics guiding campus improvement decisions
- Robust security features safeguarding campus data
- Seamless connectivity with educational platforms enhancing learning experiences

# Experiential learning

- Experiential learning
- fosters deeper understanding,
- skill development, and
- personal growth through active engagement in real-world experiences.

# Experiential Learning

- Experiences are carefully chosen for their learning potential (i.e. whether they provide opportunities for students to practice and deepen emergent skills, encounter novel and unpredictable situations that support new learning, or learn from natural consequences, mistakes, and successes).
- Throughout the experiential learning process, the learner is actively engaged in posing questions, investigating, experimenting, being curious, solving problems, assuming responsibility, being creative, and constructing meaning, and is challenged to take initiative, make decisions and be accountable for results.
- Reflection on learning during and after one's experiences. This reflection leads to analysis, critical thinking, and synthesis. Learners are engaged intellectually, emotionally, socially, and/or physically, which produces a perception that the learning task is authentic.
- Relationships are developed and nurtured: learner to self, learner to others, and learner to the world at large.

# Some form of Experiential Learning

- **Internships** – A term used to describe experience-based learning activities. The mission of this experience may be to support the integration of theory and practice, explore career options, or foster personal and professional development
- **Service learning** – This term is used to denote optional or required out-of-classroom community service experiences/projects attached to courses or a separate credit bearing experience.
- **Cooperative education** – Mostly a part of professional programs, students gain practical relevant work experience over a period of multiple terms that intersperse their coursework. Students alternate work and study, usually spending a number of weeks in study (typically full-time) and a number of weeks in employment away from campus (typically full-time).



# Some form of Experiential Learning

- **Practicum** – A relative of the internship, this form of experiential learning usually is a course or student exercise involving practical experience in a work setting (whether paid or unpaid) as well as theoretical study, including supervised experience as part of professional pre-service education.
- **Undergraduate research experience** – Students function as research assistants and collaborators on faculty projects.
- **Community-based research** – Faculty and students cooperate with local organizations to conduct studies to meet the needs of a particular community. Students gain direct experience in the research process.
- **Field work** – Supervised student research or practice carried out away from the institution and in direct contact with the people, natural phenomena, or other entities being studied. Field work is especially frequent in fields including anthropology, archaeology, sociology, social work, earth sciences, and environmental studies.

# Learning resources experiential learning

- ***Experiential Learning & Teaching in Higher Education: A Journal for Engaged Educators***
- ***Innovative Higher Education***
- ***International Journal of Research on Service-Learning and Community Engagement***
- ***Journal of Experiential Education***
- ***Journal of Higher Education Outreach and Engagement***
- ***Journal of Service-Learning in Higher Education***
- ***Journal of the Scholarship and Teaching and Learning***
- ***Undergraduate Journal of Service Learning and Community-Based Research***
- ***Collaborations: A Journal of Community-based Research and Practice***
- ***Gateways: International Journal of Community Research and Engagement***

# Future learning spaces

- Create technologically smart spaces
- Morph the role of the teacher
- Ensure connectivity
- Set up classrooms
- Build classrooms
- Communicate differently
- Have technology coaches
- Make way for virtual reality

# Technology Impacted Learning

- augmented reality,
- 3D printing,
- cloud computing,
- online social networking,
- flexible displays, biometrics,
- multi-touch LCD screens,
- and game-based learning.

# Physical infrastructure

- Lecture room for ICT learning enablement
- Faculty rooms
- Spaces to enable interactions among students
- Digital library and reading spaces
- Student support system
- Curricular labs and
- Advanced research laboratory
- Tinkering labs

# Sustainable infrastructure

- Green and sustainable buildings with zero carbon foot prints
- Water harvesting
- Rooftop water harvesting
- Waste disposal : electronic , Chemical, mechanicsl
- Use of renewable Energy

# Thanks