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Designing Model Curricula for Master's Degree Programmes in Indian Knowledge Systems

Arvind Kumar Agrawal* and Ram Lal Bagaria**

Over time, Indian society has amassed a great collection of knowledge and expressions in various fields, including science, social sciences, arts, literature, customs, different languages, and remarkable architectural feats. There is a pressing need to place special emphasis on fostering Indian languages, arts, and culture. This article analyzes the features and characteristics of the rich cultural and intellectual history of Indian Knowledge Systems (IKS) and provides methods for revitalizing it by incorporating ancient knowledge systems into the educational curriculum. The article calls for the development of new undergraduate, postgraduate, and research courses or degree programmes to be offered at higher education universities and institutions. It details the draft Master's or Postgraduate degree programmes in IKS, which is consistent with NEP-2020 and other applicable curricula and regulatory frameworks. The article investigates the teaching-learning process, assessment, and evaluation procedures for the newly drafted model curriculum for Master's or Postgraduate degree programmes in IKS. India can regain its cultural legacy and pride by resurrecting and conserving IKS, while also promoting a more holistic and inclusive approach to education.

Indian Knowledge Systems *(hereafter referred to as IKS)* refer to the vast body of knowledge, practices, and traditions that have evolved in the Indian subcontinent over centuries. This indigenous knowledge encompasses various domains such as agriculture, health, engineering, architecture, and environmental conservation (NEP, 2020*).*[1] IKS is deeply rooted in the cultural, social, and ecological contexts of India and is a reflection of the diverse communities and their experiences. IKS comprises a wide range of profound intellectual traditions that have developed over thousands of years, spanning diverse domains such as philosophy, scientific inquiry, mathematics, astronomy, architectural design, and economic thought.[2]

However, the preservation and promotion of these knowledge systems face significant challenges in the modern era, as traditional practices are often overlooked in favour of Western paradigms. The NEP-2020 emphasizes the importance of integrating IKS into the curriculum to promote a holistic understanding of Indian culture and heritage.[3] According to the policy, there will be a priority on developing IKS-related courses in natural sciences, social sciences, humanities, engineering, medicine, agriculture, community

** Former and Founder Vice Chancellor, Mahatma Gandhi Central University, Motihari-845401, Bihar. E-mail: drarvindagrawal@gmail.com*
*** Assistant Professor, Department of Economics, Mahatma Gandhi Central University, Motihari-845401, Bihar.*

knowledge systems, fine and performing arts, and vocational skills.[4]

UGC has issued recommendations[5] for implementing IKS in academic settings. Premier institutions, including IITs and IIMs, have provided specialized IKS course(s) for learners. Furthermore, UGC has included IKS as a subject in the National Eligibility Test (UGC-NET). Candidates who pass this test will be eligible for potential teaching opportunities, scholarships, and research degrees, which will help mainstream IKS in Indian academia.

The article analyzes the need for new undergraduate, postgraduate, and research courses or degree programmes and outlines model Master's or Postgraduate degree programmes in IKS. The article also sheds light on the teaching-learning process, assessment, and evaluation procedures to be adopted in drafted programmes to meet the objectives mentioned in IKS programmes. By resurrecting and conserving IKS, India may restore its lost cultural legacy and pride while encouraging a more holistic and inclusive approach.

Curriculum Framework of Master/Postgraduate Degree Programmes in IKS

The draft Master or Postgraduate programmes in IKS is a pioneering academic initiative to explore India's profound ancient wisdom rooted in philosophy, science, arts, and traditions. Aligned with NEP- 2020 and other regulatory frameworks, the programmes provide a holistic understanding of ancient knowledge systems and their modern relevance.

***Programme Level*:** Master/Postgraduate Degree Programme *(Level 6.5 as per NHEQF, applicable to learners of 2 Year Master Degree after completion of 3 Year Bachelor Degree and to learners of 1 Year Master Degree after completion of 4 Year Bachelor Degree)*[6]

M A in Indian Knowledge Systems (IKS): Nomenclature and Structure

The curriculum structure is designed in accordance with 'The National Educational Policy 2020)' and as per policies of 'The National Skills Qualifications Framework (NSQF)', National Higher Education Qualifications Framework (NHEQF),' 'The National Credit Framework (NCrF),' 'Curriculum and Credit Framework for Undergraduate Programmes, 'Draft Curriculum and Credit Framework for PG Programmes,' along with other standards set up by institutions of national and international reputation.

The core aim of introducing these programmes is to rediscover India's timeless wisdom on existence, consciousness, and the universe while enriching intellectual horizons and cultivating an appreciation for India's cultural-philosophical heritage. By equipping learners with Indian perspectives, the programmes enable engaging with contemporary discourses through the lens of ancient Indian knowledge.[7]

As per the National Educational Policy 2020*,* the following are the ways[8,9] to pursue Master's or Postgraduate degree programmes in Indian Knowledge Systems (IKS):

1. ***Two Years/Four Semesters M.A. in Indian Knowledge Systems*** *for Learners Completed Three Years Bachelor Degree Programme (with the second year devoted entirely to research).*
2. ***One Year/Two Semesters M.A. in Indian Knowledge Systems*** *for Learners Completed Four Years Bachelor Degree Programme (with Honours/ Honours with Research); and*
3. ***Five Years/Ten Semesters Integrated Bachelor and Master Programme in Indian Knowledge Systems*** *for Learners Completed 10+2 or equivalent examinations.*

Hence, both the programmes *(One Year & Two Years M.A. in Indian Knowledge Systems)* will suffice for the aforementioned ways of pursuing programmes as the Integrated programme will have the same syllabus *(*after Bachelor's degree*)* as prescribed for Two Years M.A. in IKS, only the first two programmes are required to be framed as per guidelines in this regard.

The structure of the One Year and Two Years programme has been developed according to credit(s) and semester(s) requirements, as mentioned in the table given below. The learners eligible for One Year programme will be required to enroll in the first year of the proposed programme structure. However, the learners will have the opportunity to use the Multiple Entry and Exit facility as recommended by the Ministry of Education in this regard from time to time.[10] Structure of Master or Postgraduate Degree Programmes in Indian Knowledge Systems is given in Table-1.

Table-1: Structure of Master or Postgraduate Degree Programmes in Indian Knowledge Systems[11]

S. No.	Programme	First Year	Second Year	Minimum Credits
1.	One Year/2 Semesters Programme M.A. IKS	40	--	40
2.	Two Years/4 Semesters Programme M.A. IKS	40	40	80

Learning Objectives

The Master's or Postgraduate Degree Programmes in *IKS* have the following objectives:

- To introduce learners to the foundational concepts and principles of IKS, fostering a holistic understanding;
- To cultivate critical thinking and analytical skills through an in-depth study of Indian philosophy, science, and arts;
- To provide a platform for learners to explore practical applications of IKS across various domains; and
- To promote interdisciplinary learning and research, encouraging a nuanced exploration of Indian knowledge traditions.

Table—II: Semester-wise Breakdown of MA Programme

Sem.	Nature of Courses	Course Code	Title of Course	Credits	(L+T+P)	Remarks
I	**DBCC**	**PIKS6501**	**Introduction to Indian Knowledge System**	**4**	**(3+1+0)**	**20 Credits**
		PIKS6502	**General Vedic Mathematics**	**4**	**(3+1+0)**	
		PIKS6503	**General Science**	**4**	**(3+1+0)**	
		PIKS6504	**Indian Social System**	**4**	**(3+1+0)**	
		PIKS6505	**Indian Economics**	**4**	**(3+1+0)**	
II	**DBCC**	**PIKS6506**	**Indian Political System**	**4**	**(3+1+0)**	**20 Credits**
		PIKS6507	**Indian Public Administration System**	**4**	**(3+1+0)**	
		PIKS6508	**Ancient Indian Diplomacy and International Relations**	**4**	**(3+1+0)**	
		PIKS6509	**Research Methodology**	**4**	**(3+1+0)**	
		PIKS6510	**Environmental Science for Sustainable Development**	**4**	**(3+1+0)**	
III	**DBCC**	**PIKS6511**	**Indian Geography**	**4**	**(3+1+0)**	**20 Credits**
		PIKS6512	**Indian Astronomy**	**4**	**(3+1+0)**	
	DBCE	**PIKS6513**	**Indian Science, Engineering and Technology (Past, Present and Future)**	**4**	**(3+1+0)**	
		PIKS6514	**Indian Justice System**	**4**	**(3+1+0)**	
	OEIC	**PIKS6515**	**Personality Development in Indian Knowledge Tradition**	**4**	**(3+1+0)**	
IV	**DBCC**	**PIKS6516**	**Indian Health Sciences**	**4**	**(3+1+0)**	**20 Credits**
		PIKS6517	**Indian Military Science**	**4**	**(3+1+0)**	
		PIKS6518	**Dissertation**	**4**	**(3+1+0)**	
	DBCE	**PIKS6519**	**Indian Aesthetics**	**4**	**(3+1+0)**	
		PIKS6520	**Indian Management**	**4**	**(3+1+0)**	
MENC		Non-Credit Course Equivalent to 2 Credits*				

*__Note:__ *The Mandatory Elective Non-Credit Courses have no semester boundaries. The learners will have full freedom to complete them in any of the semesters during the entire duration of programme. The MENC courses will require only satisfactory completion and have no grading.*

Learning Outcomes

Based on the aforementioned objectives, the expected learning outcomes of programmes in *IKS* are listed below:

- The learners will gain a foundational understanding of the core concepts of Indian Knowledge Systems;
- The learners will develop critical thinking and analytical skills through engagement with primary texts and scholarly interpretations;
- The learners will be able to apply the principles of IKS to contemporary issues and challenges; and
- The learners will be equipped to pursue further studies or careers that require an understanding of Indian knowledge traditions.

Semester-wise Programme Structure

The programme is spread over two years *(four semesters)* and covers different courses of varying natures and characteristics. The semester-wise breakdown of programme *(nature of the course, course code, title, credit allotted therein, etc.*) is mentioned in Table -II.

Eligibility

Passed a *Bachelor's Degree (3 Year/4 Year)* in any subject or branch of study. However, the nature; tenure; and span period of M.A. Indian Knowledge Systems will depend on the nature of the eligibility criteria of the particular learner and entry into the programme thereafter.

Medium of Instructions

The medium of instruction for IKS courses or programmes should be any of the Indian languages approved for higher education, apart from English, Hindi, and Sanskrit.

Teaching-Learning Process

The IKS Master or Postgraduate programmes adopt a diverse and engaging approach to teaching-learning, blending traditional and modern methods. Lectures provide a comprehensive understanding of historical context and philosophical foundations. Focused group discussions encourage critical thinking and a deeper appreciation of IKS principles. Audio-visual resources and excursions to historical and cultural sites offer tangible learning experiences.

Table III: Classification of Courses in MA in Indian Knowledge Systems as per UGC Regulations

S. No.	Nature of Course	Course Code	Description of the Course
1.	Discipline-Based Core Course	DBCC	These are the foundational courses that are to be compulsorily studied by a learner as a core requirement to complete the Programme in a said discipline of study at the Master/Postgraduate level. These also include the introductory course on research methodology, dissertation writing, project work, fieldwork, lab work, skill enhancement, value addition, etc. related to the subject/discipline.
2.	Discipline-Based Core Elective Course	DBCE	These are the elective courses, aimed at specializing the learner in a particular sub-discipline of the concerned subject/discipline. The learners have choices to choose the courses from a basket of DBCE to be offered in the concerned semester.
3.	Open Elective (Inter & Multi-disciplinary) Course	OEIC	These are the elective courses, aimed to enable exposure to some other disciplines or domains. The learners have to choose open elective courses from another department (s)/Center(s) of the university. Similarly, the department may offer certain courses to learners of another Department(s)/ Center(s).
4.	Mandatory Elective Non-Credit Course	MENC	These are value-added courses to promote multidisciplinary and holistic education among the learners. The courses are of a non-credit nature but mandatory to complete successfully for the award of the Master's degree. The learners have to choose the MENC courses, equivalent to at least 04 credits, from a basket of offered courses.
6.	Cr.	Credits	Credits are allotted to each Course as per the Credit System

Practical sessions facilitate first-hand training. These multi-modal methods aim to preserve and revive India's diverse knowledge traditions, ensuring their contemporary relevance and vitality, aligning with UGC guidelines for innovative pedagogical approaches.[12]

Assessment and Evaluation

The evaluation and assessment of learning outcomes in the IKS programmes involve various techniques for a comprehensive perspective and application of concepts. Continuous and comprehensive evaluation should be implemented to assess learning outcomes. Research projects and analytical assessments allow learners to delve deeper into specific IKS aspects, demonstrating research and analytical skills. These varied assessment methodologies focus on ensuring a comprehensive evaluation of learners' understanding and application of Indian Knowledge Systems. However, the guidelines issued by the University, as recommended by the Board of Studies (BoS), School Board, Academic Council, and statutory policies prescribed by the UGC, should be strictly followed.[13] Classification of Courses in M.A. Indian Knowledge Systems as per UGC Regulations is presented in Table III.

Conclusion

The proposed Master's or Postgraduate degree programmes in IKS offer a comprehensive and immersive exploration of India's profound ancient wisdom. Aligned with NEP- 2020 and other regulatory frameworks, the curriculum is meticulously designed to provide a holistic understanding of IKS spanning philosophy, science, the arts, and traditions.

Through diverse teaching-learning approaches like lectures, group discussions, audio-visuals, excursions, and practical sessions, learners gain tangible experiences and critical thinking skills. This pioneering initiative holds the potential to reclaim India's lost legacy, instill cultural pride, and foster a more inclusive approach to education that harmonizes traditional knowledge with modern learning.

Endnotes

1. See the guidelines at *https://www.education.gov.in/ sites/ upload_files/mhrd/ files/NEP_Final_English_0.pdf*
2. Kumar, M. J. (2024). Forging Connections: Integrating Indian Knowledge Systems in Higher Education. *IETE Technical Review*, *41*(3), 271–273.
3. See the guidelines at *https://www.education.gov.in/ sites/ upload_files/mhrd/ files/NEP_Final_English_0.pdf*
4. See the guidelines at *https:// www.ugc.gov.in/ pdfnews/3226446_Draft-Guidelines-for-Incorporating-Indian-Knowledge-System-in-Higher-Education-Curricula.pdf.*
5. See the guidelines at *https://www.ugc.gov.in/ pdfnews/5855891_Guidelines-for-Indian-Knowledge System.pdf*
6. See the guidelines at *https: //www.ugc.gov.in/ pdfnews/2990035_Final-NHEQF.pdf*
7. See the guidelines at *https://www.education.gov.in/sites/ upload_files/mhrd/files/upload_document/abc_ doc.pdf*
8. See the guidelines at *https://fdp-si.aicte-india.org/ download/Elective%20Courses%20for%20Minor%20 Degree%20in%20IKS%20v9.pdf*
9. See the guidelines at *https://www.education.gov.in/sites/ upload_files/mhrd /files/NEP_ Final_English_0.pdf*
10. *See the guidelines at https://www.ugc.gov.in /pdfnews/ 3826733_Draft_PG_Curriculumn.pdf*
11. See the guidelines at *https://www.ugc.gov.in /pdfnews/ 3826733_Draft_PG_Curriculumn.pdf*
12. Refer the *Guidelines at https://www.ugc.gov.in/ pdfnews/7900069_Guidelines-PEA.pdf*
13. Ibid.

References and Readings

1. Agarwal, A., and Narain, S. (Eds.) (1997). *Dying Wisdom: Rise, Fall, and Potential of India's Traditional Water-harvesting Systems,* Centre for Science and Environment.
2. AICTE Guidelines for Minor Degree in Indian Knowledge Systems (IKS), Government of India, New Delhi.
3. Bose, D., M., Sen, S., N., and Subbarayappa, B., V. (Eds.) (2009). *A Concise History of Science in India*. INSA.
4. Coomaraswamy, A., K. (2002). *Early Indian architecture: Cities and City-gates,* Munshiram Manoharlal Publishers.
5. Guidelines for Multiple Entry and Exit in Academic Programmes offered in Higher Education Institutions. *https://www.education.gov.in/sites/upload_files/mhrd/files/ upload_document/abc_doc.pdf*
6. Jain, M., and Jain, S. (Eds.). *The India They Saw Series (foreigner visitors on India in history from 5CE to 17th century),* Prabhat Prakashan.
7. Kapoor, K., and Danino, M. *Knowledge Traditions and Practices of India*. CBSE, India.
8. Kapoor, K., and Singh, A., K. (2005). *Indian Knowledge Systems: Vol I and II*. D.K. Print World Ltd.
9. Kumar, A. (2014). *Sciences of the Ancient Hindus: Unlocking Nature in the Pursuit of Salvation,* Create Space Independent Publishing.

10. Kumar, M., J. (2024). Forging Connections: Integrating Indian Knowledge Systems in Higher Education, *IETE Technical Review, 41*(3), 271–273.

11. Mahadevan, B., Bhat, V., R., and Nagendra Pavana, R., N. (2022). *An Introduction to Indian Knowledge Systems: Concepts and Applications,* Prentice Hall of India.

12. Padmanabhan, T. (Ed.). (2010). *Astronomy in India: A Historical Perspective,* Indian National Science Academy & Springer.

13. Sathapati, V., G. (2001). *Indian Sculpture and Iconography-forms and Measurements,* Auro Publications.

14. Seal, B., N. (2016). *The Positive Sciences of the Ancient Hindus* (4th ed.).

15. Sen, S., N., and Shukla, K., S. (Eds.) (2001). *History of Astronomy in India* (2nd ed.). INSA.

16. Subbarayappa, B., V., and Sarma, K., V. (1985). *Indian Astronomy: A Sourcebook*, Nehru Centre.

17. The National Education Policy 2020. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

18. UGC Draft Curriculum and Credit Framework for pg programmes. 3826733_Draft_PG_ Curriculumn.pdf (ugc.gov.in)

19 UGC Draft Curriculum and Credit Framework for PG programmes. https://www.ugc.gov.in/ pdfnews/3826733_Draft_PG_Curriculumn.pdf

20. UGC Guidelines for Incorporating Indian Knowledge Systems. https://www.ugc.gov.in/ pdfnews/3226446_Draft-Guidelines-for-Incorporating-Indian-Knowledge-System-in-Higher-Education-Curricula.pdf

21. UGC Guidelines for Innovative Pedagogical Approaches & Evaluation Reforms, *7900069_ Guidelines-PEA.pdf (ugc.gov.in)*

22. UGC Guidelines for Training of Faculty on Indian Knowledge Systems. *https://www.ugc.gov. in/ pdfnews/5855891_Guidelines-for-Indian-Knowledge-System.pdf*

23. UGC Guidelines on Curriculum and Credit Framework for Undergraduate Programmes. *https:// www.ugc.gov.in/ pdfnews/2990035_Final-NHEQF.pdf*

24. UGC National Higher Education Qualifications Framework (NHEQF). *https://www.ugc. gov.in/pdfnews/2990035_ Final-NHEQF.pdf*

25. *https://iks.iitgn.ac.in/*

26. *https://iksindia.org/*

27. *https://www.ugc.gov.in/pdfnews/9028476_Report-of-National-Credit-Framework.pdf.*

❑

An Appraisal of Rankings Done by National Institutional Ranking Framework : Long Live India Rankings!

M Bhaskara Rao* and P Mallika Rao**

India Rankings, first released in the year 2016, has come a long way. Starting with four categories in 2016, these rankings are now announced for 13 categories. The participation of higher education institutions has also grown manifold from 3,565 in 2016 to 8,686 in 2023. The National Institutional Ranking Framework (NIRF) stood the test of time over the last eight years and India's Rankings are here to stay. The ranking framework has been improving over the years. India Rankings are gaining acceptance among its users viz., students, parents, academicians, educationists, and policymakers. Institution of India Rankings fulfills a long-awaited country-specific framework that has several unique characteristics and difficult to emulate by others. NIRF is expected to further strengthen its presence in India and perhaps expand its ranking framework globally in the years to come.

India, the third largest higher education system in the world, behind China and the United States comprising 1,108 universities, 43,796 colleges, 11,296 standalone institutions, 41.4 million students, and 1.55 million teachers, is indeed very complex. The Universities comprise of 56 central universities, 476 state universities, 125 deemed-to-be universities, and 451 state private universities. There are 165 institutions of national importance. Government of India notified 8 public universities and 4 private universities as Institutions of Eminence (IoEs). Such large higher learning educational ecosystem needed a homegrown ranking system - which is simple, credible and regular. This is particularly so as the alternative ranking systems are riddled with several inconsistencies and criticisms.

The Government of India took up the much-needed initiative in this direction by launching the National Institutional Ranking Framework (NIRF) by the Ministry of Human Resource Development on 29th September 2015, a framework for higher educational institutions (HEIs) to rank them for the first time in the history of independent India. This is also the first time the Government of a country developed and launched its ranking framework. Thus, the felt need for an indigenous ranking framework by the academicians, administrators, employers, parents, and policymakers was addressed. NIRF, an India centric ranking framework, provides relative standing of the Indian institutions. But, the larger objective of NIRF, ostensibly, is to improve ranking of Indian universities in World University Rankings. The uniqueness of the parameters identified by the NIRF is that they have global appeal as well as those that are country-specific, reflecting problems and prospects woven into Indian cultural and social fabric. Parameters that have global appeal include research output, research impact, learning environment, etc. It has considered parameters like infrastructure, facilities for differently abled persons, geographical diversity of students from Indian states and other countries; percentage of women students and faculty, and percentage of economically and disadvantaged students. The NIRF ranking methodology produces four separate rankings - one for universities, one for research institutes, one for colleges in different disciplines, and one for innovation. Undoubtedly the ranking framework is innovative, country-specific, and pragmatic.

Timeline of India Rankings

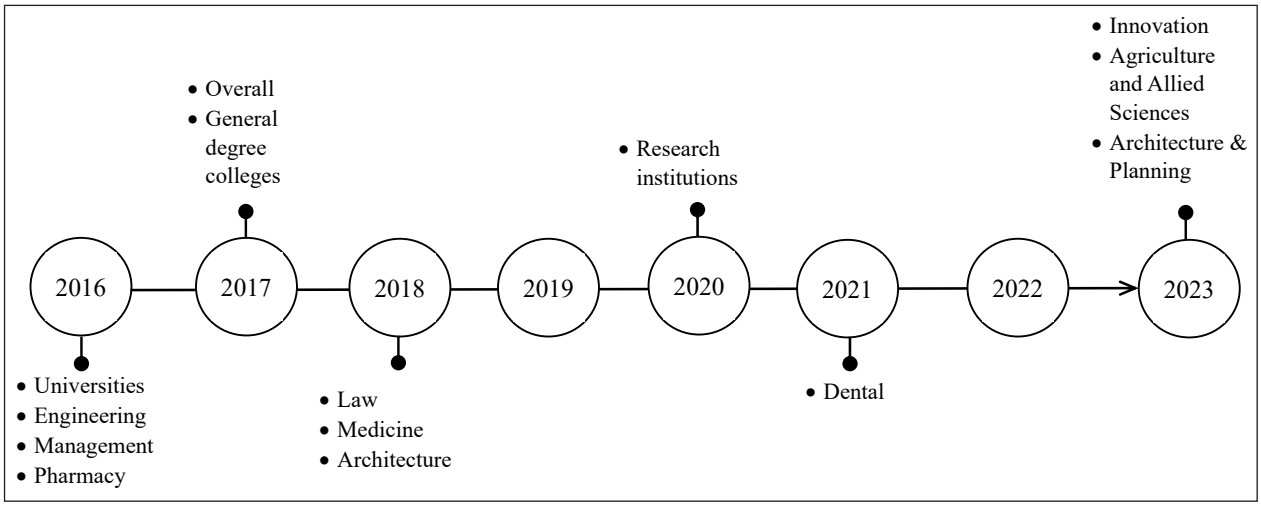
Since publishing India Rankings in 2016, NIRF completed eight cycles of rankings. Commencing with just four categories of ranked institutions, NIRF expanded to 13 categories. This is indeed an impressive performance. The timeline of India Rankings, provided in *Figure 1*, depicts the introduction of 13 categories of ranking over a period of eight years.

Rankings for Innovation category was initiated by 'Atal Ranking of Institutions on Innovation Achievements (ARIIA)' in the year 2018 by the Ministry of Education, Government of India. In its 4th edition, ARIIA was renamed as 'NIRF-Innovation' ranking and clubbed along with India Rankings.

** Professor, ICFAI Business School, ICFAI Foundation for Higher Education, Donthanapally, Shankarapalli Road, Hyderabad-501203, Telangana. E-mail: Email mbr@ibsindia.org*

***Assistant Professor, Department of Management, CMR Technical Campus, Kandlakoya, Telangana- 501401*

Figure 1: Timelines of India Rankings 2016-2023



(Source: Authors)

The India Rankings Framework

The primary purpose of NIRF is to assess and rank Indian universities, colleges, and other HEIs based on various parameters to promote excellence and quality in Higher Education (HE). The NIRF rankings evaluate institutions based on five broad parameters, each having sub-parameters (Box 1). Each of these parameters is assigned a specific weightage, and institutions are ranked based on their performance in these categories. NIRF releases rankings annually. Over the last eight cycles of ranking, the ranks and information provided by NIRF has become very valuable for students, parents, policymakers, and institutions to make informed decisions about HE. The India Rankings, as they are popularly called, help prospective students choose the right institution and programs and encourage institutions to strive for excellence in various aspects of education and research.

HEIs and India Rankings 2016-2023

Seth Godin said, "Don't find customers for your products, find products for your customers." India Rankings is one such framework from the Government of India that attracted the imagination of higher educational institutions, both Universities and

Box 1: NIRF Parameters

India Rankings assesses HEIs for 100 marks for each of the following parameters. The scores for sub parameters are also notified. The weightage for parameter varies depending on the category of participation.

Teaching, Learning, and Resources (TLR): This parameter assesses factors such as the student-teacher ratio, faculty qualifications, and the availability of resources like books, journals, and digital infrastructure.

Research and Professional Practice (RP): It considers research output, publications, patents, and collaborations with industry and foreign institutions.

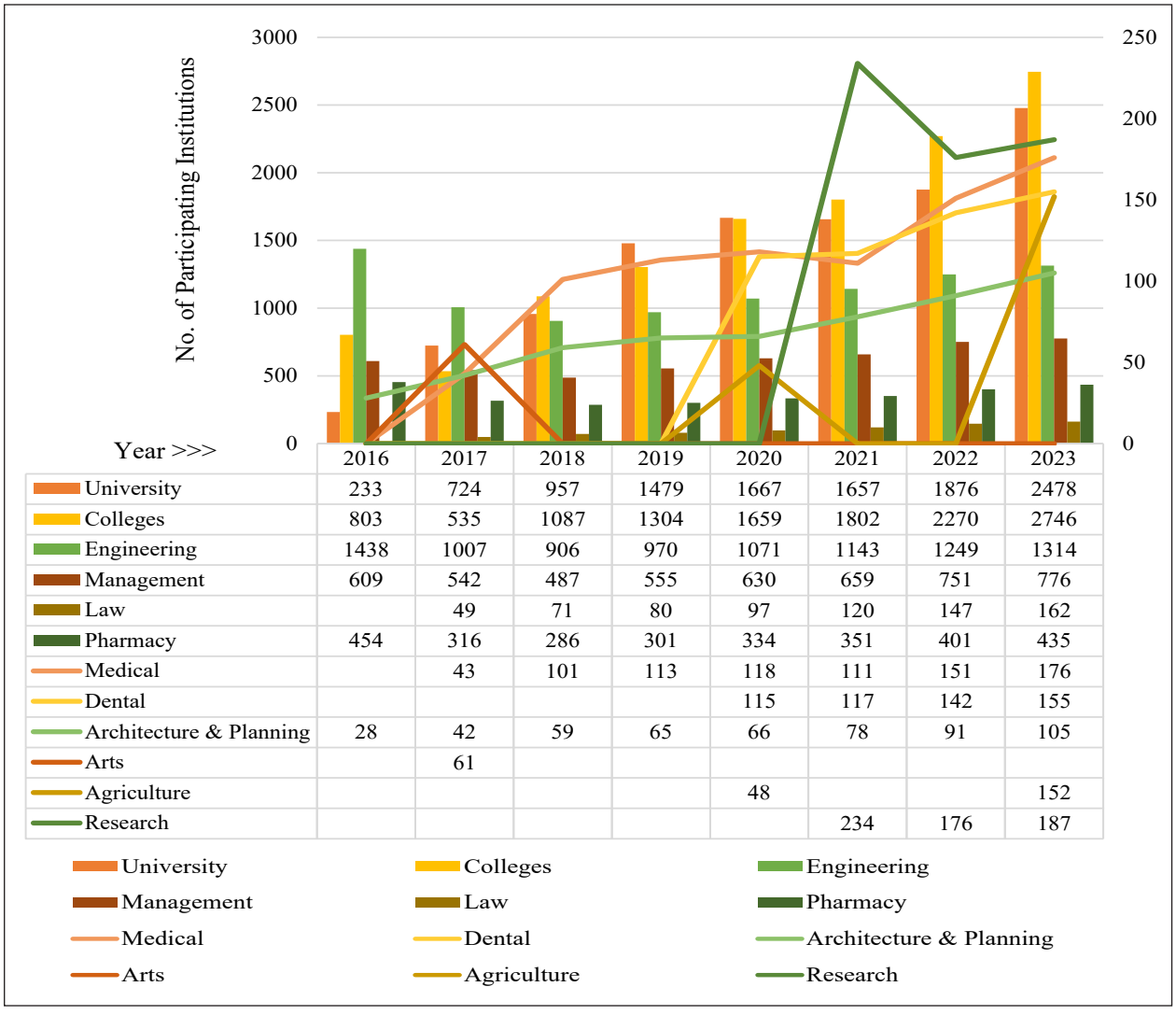
Graduation Outcomes (GO): Graduation outcomes measure aspects like the percentage of students passing exams, dropout rates, and the success of students in finding employment or pursuing further education.

Outreach and Inclusivity (OI): This parameter evaluates an institution's efforts in promoting inclusivity, diversity, and outreach activities, including the representation of women and economically disadvantaged sections of society.

Perception (PR): The perception parameter involves surveys of academics, employers, and the general public to gauge the reputation and perception of an institution.

(Source: Adapted from *https://www.nirfindia.org/Parameter*)

Figure-1—Category-wise Participation in NIRF 2016--2023



(Source: Authors)

Colleges, to participate. Category-wise Participation of Universities and Colleges from 2016 is presented in Figure 1. It is evident from the growth in the participation of institutions since the inception of India Rankings (Table 1).

The number of institutions participating in the University/Overall category has increased from 233 to 2478, a whopping 120% average increase per annum. The growth rate in the college category is an average of 30% per annum, Law 33%, Architecture

Table 1– Growth Rate of Participating HEIs in India Rankings 2016-2023

Region	Overall	Colleges	Engi-neering	Mana-gement	Law	Phar-macy	Medical	Dental	Archite-ture & Planning	Agricul-ture	Research	Total
North	34.3	45.8	-2.9	1.8	37.5	0.3	26.4	6.0	18.6	**75.0**	-5.4	15.9
South	**201.3**	173.5	-1.7	1.0	35.7	-3.4	**52.7**	6.4	20.0	38.9	-7.6	22.0
East	184.8	**294.2**	0.9	**12.9**	**71.9**	0.0	39.3	**18.8**	**42.9**	37.5	-11.5	**62.4**
West	187.8	52.8	2.1	7.3	34.2	**2.9**	44.1	16.3	40.0	66.7	**-3.6**	38.3
All India	120.4	30.3	-1.1	3.4	33.0	-0.5	44.2	8.7	34.4	54.2	-6.7	18.0

(Source: Computed by the authors from India Rankings Reports)

& Planning 34%, Agriculture 54%, and Medical 44%. Research category, which was launched in the year 2021 with the participation of 234 HEIs declined by 7% per annum to 187 HEIs in the year 2023. Engineering category also witnessed marginal decline of 1% per annum from 1,438 HEIs in 2016 to 1,314 in 2023. The average annual growth rates in several categories are impressive. Average annual growth rate of all the categories is an impressive 18%, with 3,565 institutions in 2016 growing to 8,686 in 2023. This is a manifestation of acceptance of India Rankings among the higher learning institutions and the users of the outcomes of these rankings.

Participation of HEIs from Sothern region is a huge contributor to the success of these rankings. In the India Rankings 2023, 40% of the participating institutions were from the Southern region. The growth is highest among the Overall category in the Southern region where the participating institutions have grown from 58 in 2016 to 992 in 2023. The participation in other categories too, the Southern region has a significant presence. In Engineering category, the participation is to the tune of 48%, Dental 48%, Medical 43%, Research 40%, Colleges 39%, Management 36%, Architecture and Planning 34%, Pharmacy 33%, and Agriculture 30%. Average annual growth rate of all the categories in this region is third highest at 22%, with 1,246 institutions in 2016 growing to 3,444 in 2023.

The Western region has the second highest presence among the participating HEIs in India Rankings. In the Overall category, the region had 50 HEIs participating in 2016 which has grown to 801 in 2023, registering an annual growth rate of 32%. The western region has notable participation in other categories too. In the Pharmacy category, it has 41%, Agriculture, and Architecture & Planning 36% each, Law 35%, Management 33%, Colleges 29%, Medical 28%, Engineering 27%, Dental 25% and Research 22%. The average annual growth rate of all the categories in this region is second highest at 38%, with 658 institutions in 2016 growing to 2,673 in 2023.

The Eastern region has 15% participation in the Overall category, starting from 23 universities in 2016 and growing to 363 in 2023. Participation in other categories is 21% in colleges, 17% in Law, 10% each in Engineering, Agriculture, and Research, 9% each in Management and Medical, 8% in Architecture and Planning, and 6% in Pharma. The Eastern region is fast catching up with the rest of the country in the participation levels. Average annual growth rate of all the categories in this region is highest at 62%, with 212 institutions in 2016 growing to 1,271 in 2023.

The Northern region has its footprints firmly in the India Rankings with the participation of the University/Overall category growing from 86 HEIs in 2016 to 322 in 2023, an annual growth rate of 34%. The annual growth rate in participation in this region in other categories too is significant – Agriculture (75%), Colleges (46%), Law (38%), Medical (26%), and Architecture & Planning (19%). In the Management category, the annual growth rate is a marginal 2%, while there was a decline in Engineering (-2.93%) and Research (-5.38%) categories. The average annual growth rate of all the categories in this region is the lowest at 16%, with 572 institutions in 2016 growing to 1,298 in 2023.

Participation of HEIs from Western and Southern regions together is predominantly high. In the year 2023, it is interesting to note that participation from these two regions in Overall category is 72%, Engineering (75%), Pharmacy (74%), Dental (72%), Architecture & Planning (71%), Medical (70%), Management (69%), Colleges (68%), Agriculture (66%) and Research (62%). The participation among all the categories from these two regions is 70% i.e., 6,117 HEIs of the 8,686.

The higher education ecosystem, as large and complex as is in India, needs an infusion of quality to build world-class educational institutions. The Government of India is taking steps to accelerate the growth of HEIs to increase Gross Enrolment Ratio (GER) from the current 27% to 50% by 2035, in a phased manner. The goal of India becoming a *'Vishwa guru'*, a global educational leader would remain a dream unless quality is infused into the higher educational ecosystem along with growth in the number of HEIs. Hence, India needs to develop country-specific benchmarks of quality to help the overall higher education ecosystem move up on the quality spectrum. India's rankings of HEIs, are, therefore, the right step in this direction for improving performance and quality of academic institutions. The academic leaders who designed the India Rankings framework rightly identified

relevant data to suitably measure the performance scores under each category/sub-category using data that is easy to generate and easy to verify. This ensures the overall interest of transparency. It also ensures sustained interest in participating HEIs.

Accreditation vs. Ranking

Critics of the ranking system question the need for NIRF when an established National Assessment and Accreditation Council (NAAC) is already available. It is important to note that accreditation and rankings are two distinct mechanisms used to assess and evaluate higher education institutions, and they serve different purposes.

Accreditation

Accreditation is a systematic and rigorous procedure that assesses the whole quality, standards, and pedagogical approaches of an educational institution. The process evaluates whether an institution satisfies particular criteria and standards established by accrediting authorities. The primary objective of this endeavour is to ensure that an educational institution delivers a high-quality education that adheres to specific academic and ethical criteria. This assessment includes criteria such as the quality of the curriculum, qualifications of the professors, availability of student support services, academic progression, contribution to society and the resources provided by the HEI. Accreditation encompasses a meticulous and all-encompassing evaluation carried out by an accrediting organisation. The process frequently encompasses on-site visits, self-study reports, and evaluations conducted by peers. The process of accreditation is commonly carried out at regular intervals, often occurring every few years. Accreditation leads to the attainment of a formal status or recognition. Denial of accreditation can be determined for an institution based on the assessment. The attainment of accredited status signifies that the HEIs have successfully fulfilled established criteria and standards of quality that are widely acknowledged and accepted.

Rankings

Rankings serve as comparative evaluations that seek to offer a momentary representation of an institution's relative standing about other institutions, whether on a national or worldwide scale. These are frequently utilised by individuals such as students, parents, researchers, and policymakers in order to influence their decision-making processes pertaining to education and research. Rankings commonly prioritise a range of characteristics, including but not limited to research productivity, institutional prestige, faculty excellence, global engagement, inclusiveness, and additional considerations. The criteria employed in rankings may exhibit variation across diverse ranking organisations. Usually, rankings are commonly carried out by media organisations, universities, or independent entities. In order to award numerical rankings to institutions, a combination of quantitative data and subjective surveys (perception score) is employed.

Rankings offer HEIs a quantifiable ranking or placement inside a specific list. The absence of formal accrediting status cannot be definitively attributed to rankings. It should be noted that a high ranking in a specific domain, such as research, does not necessarily imply comprehensive competence in other domains or other related facets of HE. The difference between accreditation and rankings is aptly presented in Table 2.

Table 2: Accreditation vs. Rankings

Parameter	***Accreditation***	***Ranking***
Purpose	Focuses on assessing educational quality and compliance with standards.	Aims at providing comparative information about institutions.
Process	Involves a formal and comprehensive evaluation by accrediting bodies.	Relies on data collection and subjective assessments.
Outcome	Results in an accredited status	Provides a numerical rank
Scope	A formal recognition within a specific country or region	Rankings can be global or national in scope
Focus	Primarily looks at educational processes and standards	Includes a wider range of factors, including research output and global reputation

(Source: Authors)

Accreditation focuses on ensuring educational quality and compliance with standards, while rankings offer a comparative view of institutions based on various criteria. Both can be valuable tools for students, institutions, and policymakers, but they provide different types of information.

Accreditation

Currently, India has two accrediting bodies viz., the National Assessment and Accreditation Council (NAAC) and the National Board of Accreditation (NBA). NAAC is specialised in institutional accreditation, whereas NBA focuses on program accreditation.

The establishment of the National Assessment and Accreditation Council (NAAC) in 1994 by the Government of India, under the purview of the University Grants Commission (UGC), was driven by the recognition of the significance of quality in HE. The NAAC operates as an autonomous agency, with its headquarters located in Bengaluru. The NAAC was established with the purpose of incorporating quality assurance as a fundamental component of the operations of HEIs. As of October 5, 2023, under the Revised Accreditation Framework (RAF) NAAC accredited a total of 348 universities and 4,885 colleges. Accrediting the remaining universities and colleges in India poses a significant challenge for the NAAC, requiring a considerable amount of time and deployment of resources. The issue at hand is effectively addressed by the National Education Policy (NEP) 2020, which puts out a proposal for the reform of the accrediting process.

Strengths of NIRF Ranking Methodology

NIRF is often compared to international ranking systems like the QS World University Rankings and the Times Higher Education (THE) World University Rankings. Each of these ranking systems has its strengths and limitations. NIRF methodology has several strengths. These are:

Focused on Indian Institutions

NIRF is specifically designed to assess and rank Indian higher education institutions. This focus allows it to provide more relevant and tailored information for Indian students, parents, academicians and policymakers interested in the Indian higher education landscape.

Data Transparency

NIRF rankings are relatively transparent in terms of the data and methodologies used. The government provides detailed information about the parameters, criteria, and data sources, making it easier to understand how institutions are evaluated.

Inclusivity

NIRF includes a wide range of institutions, including universities, colleges, and specialized institutions, making it more inclusive and reflective of the diversity of higher education in India.

Governance and Outreach

Being a government-backed initiative, NIRF has the ability to influence institutional governance and encourage institutions to improve their performance. The rankings also have a broader reach within India, making them more accessible to a larger population.

Regional Comparisons

NIRF allows students and stakeholders to make regional comparisons within India, which can be especially relevant when considering factors like location and access to specific resources.

However, it's important to note that NIRF also has its limitations, such as potential biases in data collection and the focus on Indian institutions only. On the other hand, QS and THE are global ranking systems that provide an international perspective on the quality of higher education institutions. Here are some strengths of QS and THE in comparison to NIRF:

Global Benchmarking

QS and THE provide a global perspective, allowing students and researchers to compare Indian institutions with those from around the world. This can be valuable for those considering studying abroad or engaging in international collaborations.

Reputation and Perception

Both QS and THE incorporate reputation surveys that gather opinions from academics and employers worldwide, which can be indicative of an institution's global reputation and standing. This component is significantly higher in QS and THE compared to India Rankings.

Research and Publications

These rankings place a strong emphasis on research output and citations, which can be relevant for institutions looking to assess their research performance on a global scale.

International Student and Faculty Metrics

QS and THE rankings consider factors like the percentage of international students and

faculty, which can be important for assessing the internationalization of an institution.

NIRF ranking is valuable for the Indian higher education landscape. QS and THE, on the other hand, provide a global perspective and can be useful for international comparisons and assessing an institution's global reputation. The choice between these ranking systems depends on the specific needs and goals of students, institutions, and policymakers.

Appreciation for NIRF

NIRF has also garnered appreciation from among its users for several reasons. These include the following:

Transparency

NIRF rankings provide detailed information about the parameters, criteria, and data sources used for evaluation. This transparency allows stakeholders to understand how rankings are determined and promotes accountability in higher education.

Encouraging Excellence

NIRF rankings have encouraged institutions to strive for excellence in various aspects of education and research. The competition for higher rankings has motivated institutions to improve infrastructure, faculty quality, faculty-student ratios, research output, and more.

Informed Decision-Making

NIRF rankings serve as a valuable resource for students, parents, and aspiring academics. They help individuals make informed decisions about which institutions and programs align with their academic and career goals.

Government Initiative

Being a government-backed initiative, NIRF has the potential to influence institutional governance and policies positively. It can drive institutions to align with national priorities in education and research.

Focus on Diversity and Inclusivity

NIRF's parameter for Outreach and Inclusivity acknowledges the importance of promoting diversity, inclusivity, and outreach activities. This emphasis encourages institutions to address social disparities in education.

Promoting Research

By considering research output and patents, NIRF encourages institutions to invest in research and innovation, which can contribute to the advancement of knowledge and the country's development.

Regional Comparisons

NIRF allows for regional comparisons within India, enabling students to consider factors like location, culture, and access to resources when choosing an institution.

Encouraging Quality Improvements

The annual release of NIRF rankings serves as a yearly performance review for institutions, which can lead to continuous quality improvements in teaching, research, and overall educational experience.

Boosting Global Recognition

High NIRF rankings can enhance an institution's reputation and visibility, potentially attracting more international collaborations, faculty, and students.

Government Support

The government's commitment to improving higher education through initiatives like NIRF underscores its dedication to enhancing the quality of education in India.

Criticisms on NIRF

Not all is well for the India Rankings. NIRF has faced several criticisms. These include the following:

Subjective Parameters

Critics argue that NIRF's parameters, particularly those related to perception, are subjective and may not accurately reflect the quality of education or research at an institution. NIRF perception surveys rely on the opinions of academic and employer peers. These can be influenced by biases and limited knowledge.

Overemphasis on Perception

Some argue that NIRF places too much weight on the perception parameter, which can lead to institutions focusing more on building their reputation rather than improving educational and research outcomes. Compared to global rankings, NIRF has a 10% score for perception-based reputation, which appears to be reasonable.

Lack of Data Accuracy

Critics have raised concerns about the accuracy and reliability of the data used in NIRF rankings. Data collection and verification processes may not be robust enough to ensure the quality of information. This could be true of any ranking system. There may be genuine concerns about this. NIRF is continuously monitoring and improving on the data accuracy.

Limited Inclusivity

While NIRF aims to promote inclusivity, some argue that it does not adequately account for factors like social inclusion, diversity, and regional disparities. It may not fully capture the challenges faced by institutions in remote or underprivileged areas.

Limited Scope

NIRF primarily focuses on higher education institutions in India, which limits its utility for international students or institutions seeking global recognition. But India itself has so much diversity and huge numbers of students seeking higher education. India Rankings certainly provide some guidance to students and parents in pursuing higher education.

Manipulation of Data

There have been instances where institutions have been accused of manipulating data to improve their NIRF rankings. This can undermine the integrity of the ranking system. While it may be true in some instances, the media houses and the public in general raise red flags promptly, and such aberrations get corrected.

Incentives for Compliance

Critics have suggested that institutions may be driven to meet the specific criteria of NIRF to improve their rankings, potentially diverting resources from other important educational activities. This may happen in the short term with respect to some institutions, but certainly, in the long term, only those institutions that focus on quality can sustain respectable rankings.

Lack of Differentiation

Some argue that NIRF rankings do not effectively differentiate between institutions with varying strengths and missions. A one-size-fits-all approach may not adequately represent the diversity of Indian higher education. The rank by itself is a differentiator. However, students and parents should also evaluate institutions through other sources and references while making a decision. India Rankings definitely provide a perspective on an institution, which was not available previously. Alumni networks, faculty, and word-of-mouth recommendations are important to augment the information available in the public domain through India Rankings.

Limited Focus on Quality of Education

NIRF rankings tend to emphasize research output and academic perceptions over the quality of education provided to students. Teaching and learning outcomes may not be adequately reflected.

Delay in Data Release

NIRF rankings are often released with a significant time lag, which can make the information less timely and relevant for prospective students and institutions. The Government started announcing the India Rankings as per a predefined calendar, but the coronavirus pandemic disrupted the cycle. All efforts are being made to put the rankings cycle on track for the benefit of the concerned.

Suggestions for Making India Rankings Robust

Notwithstanding these criticisms, NIRF has made positive contributions to Indian higher education by promoting transparency, encouraging institutions to improve, and helping students make more informed choices about their education. However, ongoing refinements and improvements in the framework and data collection processes may help address some of the criticisms and further enhance the credibility of the rankings. Here are some suggestions for making the India Rankings more robust:

First, it is now public knowledge that some participating institutions are gaming the research and publications, thus racing ahead in the rankings. Thus, the HEIs that are genuinely striving for excellence are suffering. To discourage gaming the research and publications, the weightage for this parameter may be reduced by half.

Second, the country has embarked on the task of implementing the National Education Policy (NEP) 2020 in its quest to become a global leader in education. New parameters, which are certainly country-specific, may be introduced in the Ranking Framework to give a fillip to the implementation

of some initiatives of NEP- 2020, where the data is available in a transparent manner.

Third, it is also time for the Ranking Framework to introduce some weightage for the implementation of Sustainable Development Goals (SDGs), at least one by each participating institution, where the outcomes can be objectively measured and verifiable.

Fourth, NIRF should align itself to its original schedule of announcing the rankings on April 1 every year. It will provide timely guidance to the users of the rankings.

And, finally, with its vast experience in the past eight years and with its deep dive into the ranking framework, NIRF should now outgrow and come out with a separate Global Institute Ranking Framework (GIRF) and make India's presence felt among the HEIs internationally.

Conclusions

It's important to note that each ranking system may use different criteria, methodologies, and data sources, leading to variations in rankings. Institutions often consider a combination of rankings to assess their performance comprehensively. Additionally, students and stakeholders should use rankings as one of several factors when making decisions about higher education, as rankings alone may not provide a complete picture of an institution's strengths and weaknesses.

NIRF is a yearly game. To win, you have to play every day. The entire educational institution should be focused on quality paradigm, consistently. As Edwards Deming said, "You cannot inspect the quality into the product; it is already there." Lee Iacocca said "When the product is right, you don't have to be a great marketer." The NIRF framework is superior in many respects and hence NIRF doesn't have to market it. The participating institutions themselves will!

Note : The views presented in this article are of the Authors. They do not in any way reflect the view of the institutions with which they are associated. ❑

Professional Development of Faculty Under National Education Policy–2020

Subhashini Muthukrishnan*

With the changing roles and responsibilities of higher education institutions and the faculty in the highly dynamic and complex scenario, multidimensional professional development for teachers has never been more important than it is today. This article seeks to explore the complex relationship between the changing expectations from higher education and the challenges faced by faculty in meeting them in the areas of pedagogical innovation, integration of technology in education, and the need for the professional and personal growth of teachers arising from various socio-economic and political changes.

Navigating the Changing Context of Higher Education

Higher education is shaped by geopolitical, socio-economic, and technological factors. Globalization and the free-market era have led to increased collaborations among Higher Education Institutions (HEIs) across the world resulting in increased student and faculty mobility, research funding, and academic collaborations among them. Economic changes and neo-liberal market philosophy are influencing funding, affordability, returns to education, employability, and skill formation. Demographic changes, prevailing family structures, women empowerment, and urbanisation affect enrolment patterns. Advances in technology, such as the Internet, artificial intelligence, and mobile technology, have revolutionised teaching learning methods, and research processes.

The increasing use of metrics in higher education performance, such as accreditation by the National Assessment and Accreditation Council (NAAC), yearly ranking by the National Institutional Ranking Framework (NIRF), Faculty Performance Index (FAPI), Outcome Based Education (OBE) and adapting the National Education Policy (NEP) 2020 and several other ranking and grading systems has led to significant changes in the working of Higher Education Institutions (HEIs).

Secondly, the withdrawal of government grants and the rise of private participation in higher education have put administrative and financial pressure on HEIs, as faculty are required to be paid according to UGC pay bands. Thirdly, the autonomy of several colleges has led to variations in programs offered by them and affiliated colleges, despite adherence to UGC guidelines leaving the affiliated colleges to depend on universities where curriculum changes are slow. Fourthly, in the changing socio-economic, geo-political, and technology-driven scenario, the curriculum must be aligned to deepen knowledge and increase employability both within the country and outside. Collaboration with research institutes both at the domestic and international levels has become imperative to pursue institutional-level research, file patents, and incorporate changes in teaching and research. Fifthly there has been a paradigm shift from the traditional-one life-one job- one career to changing careers and jobs making HEIs individual learners and future employers work to meet this ever-changing expectation through formal placement activities. Institutions have to support placements of students today like never before requiring abundant resources for training students and faculty to follow the procedures. Sixthly the composition of the students in terms of their academic interests, personal growth, and the social milieu they come from requires the attention of the HEIs faculty by providing mentoring and counselling services. Seventhly infrastructural availability to modernise and digitise teaching learning is yet another challenge requiring both funds and skill upgradation of teachers. Finally, governance and leadership issues driven by the market model have far-reaching consequences on teaching and governance, as teachers have become mobile and have to adapt to different institutional systems. All these changes have resulted in increased personal responsibilities of teachers who have to learn to comply with them and navigate through these changes effectively while managing their workload and personal stress.

National Education Policy–2020 and Professional Development

The era of UGC-supported teacher refresher and orientation courses has gone by where every teacher had to undergo periodical upgradation in terms of refresher courses for career advancement. NEP–2020 does present a few lines on the professional development of teachers though not indicating much on how and

* *Former Associate Professor of Economics and Dean of Social Sciences, St Joseph's College, Bangalore- 560027. Email : subhasjc@gmail.com*

who would provide this support. The NEP recognises the fact that comprehensive teacher training programs are necessary for the successful implementation of its ambitious agenda of reforming higher education in India. The NEP 2020 envisages a 'holistic and multidisciplinary learning structure 'that will provide flexible curricular structures and offer 'creative combinations of disciplines for study'. While this is a laudable goal, the role of professional development of teachers is imperative if 'curriculum, pedagogy, continuous assessment, and student support' (NEP 2020) are to be reshaped to provide quality learning. The NEP expects that the professional development of faculty will keep them 'motivated, energized, and capable'. In the following section, the expectations of the NEP about faculty in different areas are examined.

Curriculum Design and Academic Processes

Faculty play a crucial role in higher education, ensuring expertise in their subjects and continuously reviewing the curriculum to improve teaching and foster 'creative and critical thinking skills' among students. A well-designed curriculum is essential for planning academic activities, providing academic rigor, designing pedagogical approaches, creating a conducive learning environment, and effectively monitoring student progress. It influences co-curricular activities, campus culture, and discipline, ultimately meeting the institution's mission and vision. However, many faculty members lack understanding of this process and often mimic what they were taught without critically understanding its relevance. Encouraging a culture of reflection, discussion, and collaboration among faculty leads to continuous improvement, making programs and courses more meaningful and relevant to both students and teachers. Mandatory and continual faculty development programmes, such as participation in refresher and upgradation courses, workshops, seminars, and conferences, should be made for career advancement in the academic domain. Designing and redesigning the curriculum requires leadership, teamwork, managerial, and administrative skills, requiring experience and training.

Creating a Holistic and Multidisciplinary Learning Structure

The National Education Policy (NEP-2020) aims to develop multidisciplinary programs that incorporate diverse concepts, methodologies, and perspectives from various fields of study. These programs extend beyond traditional disciplines, allowing students to explore their interests and develop creative and critical thinking skills. The creation of such courses requires faculty with research and training in specific areas and collaboration with researchers in related fields. These multidisciplinary courses motivate teachers to become continual learners, resulting in flexible curricular structures and insights from different academic perspectives translating into their research areas.

Multidisciplinary courses require more planning and expertise than regular ones, and without adequate support, teachers may struggle to balance their roles. To address this, training and professional development should be provided to enhance their knowledge and skills in interdisciplinary teaching and research. Institutional policies should support workshops, resource allocation for lab setups, flexibility in curricular structures, and streamlining administrative processes. Without professional development, the objectives of the NEP 2020 may become academic chores, with adjustments made to meet UGC and NAAC requirements. Many Higher Education Institutions (HEIs) organize seminars and workshops to show them as events rather than academic experiences for multidisciplinary learning.

Class Room Pedagogy and Assessment

The National Education Policy 2020 emphasizes the importance of pedagogy in higher education, emphasizing the role of teachers in creating an interactive learning environment. This aspect of higher education relies on the knowledge, attitudes, values, skills, and behaviour of the faculty. Lecture-based methods are commonly used to engage students, but experiential learning methods like case studies, presentations, film screenings, and several other methods can also be effective. These methods allow for research projects, writing essays, data collection, and collaboration among students, teaching them to become responsible for their learning.

The quality of student participation in classroom academics is influenced by factors such as the institution's efforts to maintain a learning atmosphere, discipline on campus, and its style of managing teachers. Teachers must have the flexibility to make small modifications in content to enhance activities and learning and not be micro-managed for their work. Large undergraduate classes pose challenges, so guiding students toward self-work is meaningful. Discussion among peer teachers on various methods and successes requires an atmosphere of trust and open learning. Behavioural training is essential, as is the ability to listen, shift paradigms, understand emotions, and be creative in their learning. Regular meetings among teachers should become a part of their work culture.

Outcome-based Education (OBE) focuses on developing subject-specific outcomes and generic skills applicable to various disciplines, such as teamwork, problem-solving, time management, and using the Internet. The academic culture should provide opportunities for students to learn and succeed in academics, ensuring that all students graduate with the necessary skills and knowledge for success after graduation. OBE paradigm focuses on aligning classroom pedagogy and assessment strategies. Formative and summative assessments are crucial for providing effective OBE. Teachers should develop innovative methods for continuous or formative assessment, such as quizzes, homework, assignments, and classroom discussions. Guiding students to attend seminars, lectures, and professional development courses can be beneficial and can determine overall student achievement and competence.

Professional development programmes are essential for improving knowledge about assessment, instructional practices, and outcome-based education. These programs should focus on developing formative and summative assessment tools, providing constructive feedback, and improving classroom pedagogy. Workshops should also emphasize question paper setting, using Bloom's taxonomy of educational objectives, and creating professional communities that critique ideas and develop new paradigms for student testing.

Integrating Information and Communication Technology into Curriculum

After the COVID-19 pandemic, the integration of technology in teaching-learning has expanded significantly. This can take various forms, including hybrid or blended learning, where students and teachers interact in a classroom setting, and some online sessions, such as testing and evaluation. This approach offers flexibility in time, place, and pace of learning. Teachers can use technology-based pedagogies to create short videos, technical presentations, blogs, or vlogs, and devise new assessment methods.

Faculty training is crucial for this, with some knowledge and skills acquired through trial and error, while formal training advances knowledge and skills in the latest tools and platforms available in areas of teaching, formative and summative assessment, and feedback. Teachers should also have access to professional development workshops for various software and databases used in research. Learning to use national repositories like Academic Bank of Credits (ABC), Digi locker, Unified University College Management System - UUCMS and other tools to assist in student support is necessary. Providing ongoing professional development can help develop confidence, knowledge, and skills to leverage technology to enhance the pedagogy of learning.

Governance and Administration

The NAAC has highlighted the importance of governance in higher education institutions (HEIs), requiring faculty to stay updated on policy and legislative changes at university, state, and national levels. This may require faculty to plan their academic work, such as FAPI. Understanding the roles and responsibilities of stakeholders is crucial to avoid conflicts and build trust among faculty. HEIs should develop reporting structures, clarity of roles in administration, and systems of procedures to avoid unnecessary workplace conflicts. Open communication and leadership training workshops, including communication and conflict resolution skills, are essential for building a community of dedicated teachers and administrators. Community engagement, counselling, and mentoring skills are also crucial for developing effective leaders and administrators. Conducting regular managerial exercises such as strengths, weaknesses, opportunities, and challenges (SWOC) for each learning unit and institution keeps members informed about setting goals, developing action plans, allocating resources, and monitoring progress toward the institution's goals.

Conclusion

Teachers often experience stress due to the numerous administrative tasks they must perform without adequate professional development, which negatively impacts their primary task of facilitating learning, leading to academic suffering. To streamline processes, better planning, adhering to plans, and monitoring activities through audits can be implemented. NAAC and other bodies should reflect on their grading system and identify changes to relieve teachers from large documentation and administrative work, freeing them to focus on academics and professional growth. Financial resources, time, and good professional leadership can create a quality-oriented higher education that will seek to keep the faculty 'motivated, energized, and capable' as envisaged in the NEP2020.

Note: The entire text is based on my experiences as a teacher who underwent an enormous amount of training till retirement and also as a trainer for teacher education over the years.

References & Readings

1. *https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf* ❑

Revitalizing Teacher Education in India

D Srinivas Kumar*

The main aim of the present paper is to project a few issues, challenges, and concerns in the teacher education system in India with a focus on revitalizing teacher education in India. Teacher education is a dynamic system and it is provided to cater to the needs of school education and teacher education systems. Preparation of teachers requires thorough commitment and a focused approach is required. The author discusses the aspects of a total paradigm shift in the Indian education system during the British Rule, and the ways to set right the situation. Also, issues, challenges, and concerns relating to the teacher education sector have been analytically narrated in the present chapter. The key role of NCTE in the promotion of planned and coordinated development of teacher education programmes in the country. A few suggestions have been offered to the policymakers for widening and enhancing the scope of teacher education across the disciplines of higher education.

Concept of Teacher Education

Teacher Education is a dynamic system with a holistic process involving preparation of two types of teachers, namely, school teachers, and teacher educators. School teachers work in school education system, and teacher educators discharge their duties in teacher education system. In that, school education provides education for children with an aim of developing good citizens for the nation, and teacher education prepares school teachers, teacher educators. On one side, it prepares researchers for organizing research in school education and teacher education covering a wide canvas that includes policy research and, on another side, about school and classroom practices, etc. However, it has a wide operating scope in the Education System in India. The National Education Policy- (2020) envisages a pivotal role for the Teacher Education sector in the Indian Education System in terms of pre-service and in-service education programmes.

** Dean of Academic Affairs and Dean, School of Education and HRD, Dravidian University, Srinivasavanam, Kuppam, Chittoor District, Andhra Pradesh. E-mail:drsrinivas.kumar927@gmail.com*

In this context, it is essential to look at the positioning of the teacher education system. It is interesting to note two strong points of view in this context, namely, teachers are born, and teachers are made.

Teachers are Born

This point of view is strongly subscribed by a section of teachers in a very strong and firm manner. Such teachers argue that the teachers are born but not made. For them, training is not required to become teachers at any level – be it school, college, or university. They also view that if at all training is required, it is for the preparation of school teachers but not for the next higher levels like colleges and universities. They also believe that teacher education is connected to school education only but not with other disciplines for teaching in which no pre-training is essential. They must accept the view that training makes them better teachers and hone their skills of teaching.

Teachers are Made

Such a section of teachers view that teacher training or teacher education makes an individual become a skilled teacher. The teacher education practitioners could not emphasize that teacher education or teacher training is imperative for all levels. Subscribers of this view must make all attempts to justify their standpoint that training is essential to make good teachers and to imbibe professionalism among teachers from other disciplines also. And, such justification shall be made without any prejudice to teachers from other disciplines about their skills of teaching. It should be made clear that training makes them better teachers.

In this regard, it is imperative to throw light on the aspect of paradigm shift that took place from the foundation level of the Indian Education System during the British rule in India. Education aims at bringing the 'best potentialities out of a human being' and it should be the governing principle operating it. Trained teachers work in certain areas like the School Education Sector and Teacher Education sector whereas some teachers work without any formal training involved in teaching in other academic

areas, such as liberal arts and humanities, social sciences, sciences, engineering, etc. In this context, it is important to throw light on the paradigm shift that occurred in Education during the British rule in India.

Paradigm Shift – Skill-based Education to Literacy-based Education

Ancient Indian Education System was skill-based and it was changed to literacy-based education by the British Rulers in India before independence. It would be interesting to note the massive changes that have taken place in the Indian education scenario during the British rule. In order to establish and continue their rule in India, the Britishers advocated the English medium of education, and thereby indigenous systems were eroded from the grassroots level. McCauley's minutes had a tremendous impact on the Indian Education System during British Rule.

It would be apt to recollect a few examples from the contexts prevailing during the ancient period in India (the erstwhile *Bharatavarsha* or *Bharatakhanda*). It would provide more clarity about the then-prevailing situations. There were princely states and zamindary systems of administration in *Bharatavarsha* and no single Constitution was governing these systems.

At the family level, the father used to perform the role of money earning and the mother's focus was on household maintenance including nurturing the children. Such contexts were prevalent in a major way in Indian families. At the social level, families were dependent on one another for a variety of services and maintenance of day-to-day life. In this context, it is imperative to note that the then-existing families were occupation-based or in other words, skill-based. Such teaching method is presently known as 'guided practice' in the formal schooling, college, and university system. To cite a few, such occupations include – priesthood, smithery, pottery, agriculture and allied areas, and so on. A brief about their daily life practices is mentioned below.

Priesthood: Priesthood refers to performing various rituals in temples at different points of time. Gaining their livelihood through parts of offerings from devotees of the temples. Children were trained by their father/guardian in the aspects of Vedas, Mantra-Shastras, and practices connected with temple rituals. They were provided training in some other rituals relating to marriage, birth, death, etc. Such aspects were taught in Vedic Schools (*Veda Pathashalas*) and *Gurukulas*. They used to move to Vedic Schools and *Gurukulas* located in different places to acquire specialized and advanced learning in various Vedas and Mantra-Shastras.

Smithery: Smithery refers to the work of smiths working with different types of material and carving them into a specific shape as per the requirement. Goldsmiths, blacksmiths, carpenters, sculptors, etc., were part of smithery occupations/professions. Young children were trained in their respective smithery occupations by their elders in a specialized manner. Father/guardian used to take the role of the teacher in this regard. Gold ornaments, idols of Gods and Goddesses, woodwork, iron and steel material and utensils, etc., were used to be prepared by them for utility in temples, persons, marriage rituals, etc., and society at large.

Pottery: Pottery refers to the occupation of making pots and other utilities with earthen soil in different shapes. Preparation of water pots of different sizes, cooking stove of various types, earthen lids, earthen idols of various shapes, etc., for utility in places of worship and households. Father training their children in pottery is a common practice and succession of training to the next generations in this occupation is also usual.

Agriculture: Agriculture refers to the growing of various types of food crops and maintaining animals. Food crops like paddy, sugarcane, pulses, cereals, etc., were cultivated as part of agriculture. Father/guardian used to take the role of the teacher in teaching his children about agriculture and its related activities like preparing the earth by ploughing, sowing seeds, watering, using organic manure for the protection of crops, etc. Father used to teach his sons and daughters guide holding the plough, using of vixen in ploughing, using a crowbar, etc., and implements in agriculture activities. In the earlier periods, organic manure was used in the agriculture fields for the protection of crops and better yield thereof.

a) There were many occupations that were prevalent during the pre-British rule in India like weaving clothes, business persons, etc.

All the above aspects indicate that individuals used to obtain education from one generation to the next generation in their respective occupations and/or professions using practice in the footsteps of their elders. Parents were the teachers for their children and guided learning and practice were provided in their respective workplaces. That was how, priests, smiths, potters, and agriculturalists were used to be trained by their elders (parents/guardians) in various skills that were needed to discharge their activities efficiently and productively. The training processes were built in their respective indigenous systems of work. Elders used to take the role of teachers for the next generations in their family-related occupations.

Presently, a few *Veda Pathasalas, Shilpa Kalashalas.* etc., are seen in contemporary Indian society but, in a different shape from the ancient periods. Integration of modern technologies with traditional systems has enhanced their occupational/professional practices. For instance, the use of information communication technologies, cutting machines, etc., has made their work easy.

Teacher is the key resource for passing on information about various aspects like language, family, society, culture, occupation, science, nation, etc., to the next generations. In certain contexts, the mother and father play the role of teacher at home, and in other contexts, the teachers of various levels from school to university, play other significant roles. Teacher education system has a very wide scope of operation in all these matters.

The Government of India appointed different commissions at different points in time, namely, University Education Commission (1948-49), Secondary Education Commission (1952-53), and Indian Education Commission (1964-66) and they gave recommendations like improving the status of teachers, providing teacher education both in pre-service and in-service, prescribing qualifications for teachers, components of teacher education curriculum, etc.

The National Policy on Education (NPE), 1986, and the Programme of Action (1992) thereunder, recommended for setting up of the National Council for Teacher Education (NCTE) with statutory status and required resources as an initial step for revamping the teacher education system in the country. The NCTE has been established as a statutory body in pursuance of the National Council for Teacher Education Act, 1993 (No. 73 of 1993) and implemented on the 1st July 1995. Its main aim is to achieve planned and coordinated development of teacher education in the country. Further, it is vested with the regulatory functions of according and/or withdrawing recognition for teacher education programmes in the country. In this context, Norms and Standards were prescribed by it in the year 2014, with amendments from time to time, for 15 types of Teacher Education Programmes, namely, Diploma in Early Childhood Education, Diploma in Elementary Education, Bachelor of Elementary Education, 2-years Bachelor of Education, 2-yearsMaster of Education, Diploma in Physical Education, 2-years Bachelor of Physical Education, 2-years Master of Physical Education, Diploma in Elementary Education through Open and Distance Learning, Bachelor of Education through Open and Distance Learning, Diploma in Arts Education (Visual Arts), Diploma in Arts Education (Performing Arts), 4-year Integrated Programme leading to B.A., B.Ed., or B.Sc., B.Ed., Bachelor of Education (part-time), and 3-years B.Ed., M.Ed., Integrated Programme. Since its inception in 1995, the NCTE has been offering yeoman services for the cause of improvement of teacher education in the country.

In fact, the National Education Policy, 2020 has made a significant recommendation that traditional Indian education systems have to be integrated with modern technologies for bringing excellence to the Indian Education system. However, there are only a few subscribers and practitioners of above mentioned traditional systems in the present society because of openings in other areas of education and work.

Issues

There are issues that play a crucial role in matters related to teacher education, such as dynamics of society, manpower planning, processes of preparation of teachers of various levels and teacher educators for different levels, curriculum, work conditions, etc. The role of parents cannot be ignored in this regard.

a) Dynamics of Society and Misconceived notions about Indian Education

Societies are dynamic and hence, change is inevitable. There are several issues and problems that are being faced by the Education system in India. It would be appropriate to consider the issues related to teacher education with regard to the contemporary society and world of work. Changes have occurred as a result of integration of modern science and technology into different aspects of family life and work places.

In this connection, it would be useful to examine the autobiography of a famous Telugu writer who depicts the woes that he faced in acquiring a school education prior to independence. A study of his autobiography would reveal about the then schooling system and eligibilities for employment. A few instances from his autobiography are presented hereunder:

- Famous Telugu writer, Chilakamarthi Lakshminarasimham (1867-1946), in his autobiography, *sweeya charitramu* (1944), written in Telugu language, narrated the difficult situations that he faced in his childhood for obtaining his school education. He was born in a poor family on 26th September 1867 in Khandavalli Village, West Godavari district, Andhra Pradesh and died on 17th June 1946. In his autobiography, he states that there were only two high schools in Narasapuram, Andhra Pradesh, namely, Taylor High School (which was also known as Central High School), and Mission High School. He mentioned that he took admission in the upper-fourth class in the Mission High School because of relatively less amount of fees was collected from the students than the Taylor High School. Further, he mentions that the prescribed subjects of study include –English grammar, History of Hindu Nation (English language version), History of British Kingdom, Geography, Arithmetic, Algebra, Geometry. He also states that in between the regular classes in the time table, there used to be Bible classes and the students were to study, remember and recite the sentences from the Bible. He further mentioned that he took middle school examinations and he was not confident of passing in it. However, he passed the same in third division. *Also, he mentioned three interesting aspects in this regard and that include – (i) if a student passes in first division he would be given employment in any Government Department; (ii) if the student passes in second division, he would be given job in the Panchayati Board; and (iii) if the student passes in third division, he would be promoted to the next higher class for further studies.* It reflects the *psyche* of British rulers in India.

It is imperative to note that the India has got independence on 15th August 1947 and Chilakamarthi Lakshminarasimham lived during British rule, that is, prior to independence. The above-mentioned instances from his life indicate that the then British rulers were basically interested and firm in promoting and propagating their own language and religion in India in addition to transfer of financial and material resources from India to their country. It is sad to observe that the then prevailing situations have helped British East India Company to establish its rule in India. Continuation of their rule over India was made easy and smooth for them by implementing Macaulay Minute. It has to be construed that these steps laid strong foundation for erosion of the base of Indian Education System during the British rule. It has given an enormous cascading and synergistic effect on lives of peoples of India, their psyche, life styles, occupations, livelihood etc. It has brought social change, cultural change, and changes in the entire education system in which, some are positive and other are negative. Phenomenal negative effects could be seen in the education system of the nation. Hence, the present author opines that 'paradigm shift has occurred from skill-based education (Indian) to literacy-based education (British) during the British rule in India'. Peoples of India have to examine these aspects and take appropriate initiatives for posterity, wherever necessary.

Manpower Planning

Manpower planning refers to the process of calculation and projection of manpower requirements for the future. It is imperative to have manpower planning in the teacher education sector for purposes of estimating the future requirement of trained teachers based on the production of the population at different points of time including their age-wise growth. Such planning reports would form a base for establishment of teacher education institutions in different parts of the country.

Maintenance of Norms and Standards

Norms and Standards have been fixed and mandated by the NCTE for the regulation of teacher education programmes in the country. Norms and Standards vary from programme to programme. For instance, the Norms and Standards for the 2-year B.Ed., programme are different from the Norms and Standards for the 2-year M.Ed programme. NCTE has fixed programme-specific Norms and Standards for all 15 types of teacher education programmes. Informal discussions among visiting team members reveal that teacher education programmes, namely, 2-year B.Ed., and 2-year M.Ed., programmes fall short on crucial aspects like employing qualified teaching staff, payment of prescribed salaries, infrastructure requirements, instructional facilities, attendance percentage of student-teachers etc.

Core Components in Preparation of Teachers

Core components in the preparation of teachers include theoretical and practical interventions in the courses of philosophical and sociological bases of education, psychological bases of education, curriculum development, methods of teaching in two school subjects, understanding the self and the society, gender issues, inclusive education, environmental education, contemporary society and education etc. That apart, school internship programme for stipulated time frame is compulsory.

Teacher-educator's attitude plays a significant role in negotiating the aspects of theory and practicum with the trainees. It is crucial to be noted that attending number of orientation programmes may not help in developing positive attitude towards self, trainees, and the teaching-learning environments. Practitioners (teacher-educators) need to introspect,firstly, on various aspects like their own levels of knowledge, understanding, and skills and to enhance the same to the required level and, secondly, on enlisting appropriate methods for providing them to the trainees. Daily practice of these two core processes would enhance the capacities of a teacher-educator and concurrently help in enhancement of capacities of the trainees.

Service Matters

Service matters refer to entitlements provided to the employee by the employer. In general, these include - stipulated conditions of work in terms of workload, entitlement to pay and perquisites, annual increment, leave, meeting medical expenses for treatment of health problems, periodic pay revision, post-retirement benefits like pension, provident fund etc. Job satisfaction and professional development are directly related to the service matters in addition other aspects working environment, interpersonal relationships, adequacy of material resources for teaching-learning, etc.

Challenges

In addition to the issues mentioned above, there exist important challenges that are to be essentially addressed. The present author observes three such important challenges, namely, professionalism, providing employment opportunities, and handling the changed environments.

Professionalism

Professionalism refers to the competence and skill expected from a professional. Teacher is expected to be a professional. Apart from possession of basic eligibilities, he/she is expected to update the competencies and skills that are required for a teacher-educator. Such enhancement involves gaining awareness about the latest developments in his/her subject, integration of information communication technologies into teaching-learning processes, exposure to modern technologies in terms of their pros and cons, use of latest teaching methods like flipped classroom, blended learning, maintenance of healthy interpersonal relationships at professional level, etc.

Employment Opportunities for Trained Teachers

Governments, Private Management, etc., may take suitable initiatives for providing of employment opportunities for trained teachers, and thereby their services are utilized for the benefit of the society and finally in laying a strong foundation for developing good citizens for the nation. Expenditure incurred on pre-service training would be wasted, if they are not provided employment opportunities. India's population is growing and hence, there is an essential requirement for teachers at school level.

A group of trained teachers may form into a team and offer their teaching services to the children in the neighbourhood villages or towns and in return, the team may seek financial support from

the citizens of village for purpose of meeting their livelihood and sustenance. Several such small teams may be formed and offer their teaching services to the children residing in villages or towns based on the financial assistance provided by the villagers or town dwellers.

Changed Environments

Integration of modern technologies, and information communication technologies into teaching-learning processes have changed the educational environments in a drastic manner. So also, the occurrence of COVID-19 has changed the life-styles and psyche of the persons including young children and adolescents. Oral discussions among teachers' circles indicate intense emotional eruptions among adolescent students, growing indiscipline, use and / or misuse of mobile technologies, substance use etc., in metropolitan cities and major towns are causing alarm among parents and teachers. These situations require conduct of case studies and are to be handled with utmost care and patience.

Concerns about the Future of Teacher Education in India

There exist a few important concerns among teacher education practitioners in the country. Against the backdrop of non-availability of employment opportunities and also enhancement of duration of B.Ed., and M.Ed., as 2-year programmes, many students are not seeking admission into these two programmes. In the existing pattern, a person has to spend 21 years (10+2+3+2+2+2) for obtaining two postgraduate degrees, namely, M.A., M.Sc., M.C.A., etc., in the general stream of education and also an M.Ed., degree. Further, to become a faculty member in a College of Education or Department of Education in a University, it is essential to pass either UGC-NET or State Level SET, and to have a Ph.D., degree in Education. It may take 3 to 5 years of time to get Ph.D., degree in Education. So, a total of about 24 to 26 years has to be spent on Education to acquire essential eligible qualifications to become a faculty member in a College of Education or Department of Education in a University. Whereas, one has to spend about 20 to 23 years to acquire essential eligible qualifications like a Postgraduate degree with Ph.D., a degree in the subject concerned to become a faculty member in other subjects relating to Arts, Social Sciences, Sciences, Management, etc. There is no need to possess an M.Ed., degree in this regard. However, the scales of pay are uniform for the faculty members belonging to both Education and non-education subjects.

Informal conversations with students from the Teacher Education sector revealed their concerns with respect to acquiring additional qualifications of 2-year B.Ed., degree and 2-year M.Ed., degree for which they need to spend 4 more years of time and further to acquire a Ph.D., degree in Education requires 3 to 5 years of extra time and put together it comes to about 24 to 26 years with no additional monetary benefits when they are recruited as faculty members in Education.

Keeping in view these aspects, a few concerns and suggestions are also given hereunder**.**

Concerns

- ***Concern 1*****:** *Enhancement of duration of face-to-face B.Ed., and M.Ed., programmes as 2-years for each programme has resulted in a drastic reduction of admissions into these programmes. Some managements have stopped offering either 2-year B.Ed., programme or 2-year M.Ed., programme by closing such Colleges.* It is an alarming situation for the faculty members about the future of their employment in Colleges of Education or Departments of Education without students' enrollment.

- ***Concern 2:*** *The future of Teacher Education is at stake*. Informal conversations among teacher-educators reveal that some Higher Education Institutions have stopped offering 2-year B.Ed., programme and/or 2-year M.Ed., programme because of inadequate student admissions besides the non-availability of regular teaching staff. Also, informal conversations among them indicate that some private managements are demanding the closure of Teacher Education Programmes in Higher Education Institutions where there is no regular teaching staff, and as a matter of uniformity in the implementation of NCTE's Norms and Standards, for all teacher education institutions irrespective of their management, that is either private or government.

a) Revitalizing Teacher Education

Suggestion 1: *Widening the scope of Teacher Education***:** At present, it is involved in preparation

of school teachers and teacher-educators. Such trained teacher-educators again would prepare school teachers. It is a process involved in catering to the pre-service needs of two sectors only, that is, school education, and teacher education.

As mentioned in suggestion 2 in the following paragraph, suitable initiatives may be thought of to start B.Ed., degree for Higher Education Institutions and fixing it as one of the essential eligibility criteria along with other essential qualifications for recruitment of faculty members in other subjects of Arts, Humanities, Social Sciences, Engineering, Technology, etc. Such initiatives would further help strengthen of existing teacher education system in the country.

Suggestion 2: *Reduction of the duration of B.Ed., and M.Ed., as one-year duration programmes:* It is essential to rethink and re-look into the main purpose and scope of teacher education system vis-à-vis other academic disciplines. It is meant to deliver prescribed subjects' content at school level for young children in the age group of 5 to 17 years. Fundamentally, it is a philosophical, sociological, psychological, technological and methodic process of content delivery to the students of the said ages so as to enhance their knowledge, understanding, application, skill base appropriate to the classes in which they study. One year of well-balanced combination of theoretical and practicum interventions are adequate for preparing competent school teachers and also teachers for higher education sector, however, it requires separate level-specific curriculum including specializations connected with each sector. For instance, there could be one-year B.Ed., programme for School Level, and another one-year B.Ed., programme for Higher Education Institutions. Likewise, there could be one-year M.Ed., programme for Teacher Education Sector, and another one-year M.Ed., programme for Higher Education Institutions. A thought may be given to restrict the recognition to a one-year B.Ed., programme with one unit of 50 students only, and no additional units would be sanctioned under any circumstances. Similar Norms could be applied for recognition of one-year M.Ed., programme also. Periodic monitoring and supervision by honest and professionally oriented visiting teams must be made mandatory. These two initiatives, if implemented, would reduce the malpractices by the management of teacher education institutions.

Conclusion

Departments of Teacher Education have been given a pivotal role as per the recommendations of NEP-2020 especially in training the teachers of various levels and it is a proactive initiative from the Government of India to help rejuvenate the teacher education system in the country. Recommendations of NEP-2020 have to be implemented in this regard. Due consideration may be given by the policymakers to bring in parity in respect of stipulation of essential qualifications in Education and non-Education subject areas by affording additional pay for the faculty members for possessing additional qualifications of 2-year B.Ed., degree and 2-year M.Ed., degree and to think of providing a few important privileges to the faculty members working in Departments of Education. It is also imperative to take initiatives to start B.Ed., degree for Higher Education so as to sharpen the skills of teaching higher education classes by using level-appropriate teaching methods.

Acknowledgement

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References & Readings

1. Chilakamarthi, Lakshminarasimham (1944). *Sweeya charitram* (Telugu Language Version) (Autobiography), Andhra Rashtra Abhyudaya Rachayitala Sangham (Eds.). Bejawada (Vijayawada): Prajashakti Karyalayam (Publishers), (Publication Number 94).
2. Government of India (1986). National Policy of Education (1986), Ministry of Education, Government of India, New Delhi.
3. Government of India (2020). National Education Policy (2020), Ministry of Education, Government of India, New Delhi.
4. *2015.372394.Sviiya-Charitramu.pdf (archive.org)*
5. Microsoft Word - Historical Development of Teacher Education (gcoekmr.org)
6. National Council for Teacher Education (ncte.gov.in)

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Self-discovery : The Catalyst for Personal Growth

Jagdeep Dhankhar, Hon'ble Vice President of India delivered the Convocation Address (Excerpts) at the 37th Convocation Ceremony of the Indira Gandhi National Open University, New Delhi on February 20, 2024. He said, "Do not be afraid of failure, for it is the stepping stone to success. Let it be a catalyst for growth and self-discovery. Together, let us build an Amrit Kaal where every dream takes flight, and where the true potential of our youth illuminates the path to a brighter tomorrow." Excerpts

It is truly an honour to be part of the 37th Convocation of the prestigious Indira Gandhi National Open University (IGNOU). Degrees are being awarded to 3 lakh students. This three and a half million student population is unprecedented at global level.

I extend my heartfelt congratulations to the graduating Students, their family members, and their teachers. Your hard work, dedication, and perseverance have brought you to this significant milestone, and I commend each one of you for your achievements.

Friends, convocation is much beyond a ceremony. It is a milestone in all your lives. An unforgettable moment. It marks the culmination of years of dedication, hard work, and sleepless nights.

This moment is also a turning page in the chapter that has, so far, been your life at this university.

You will move beyond this chapter, leaving behind the familiar charm of student life and embracing the exhilarating life of adulthood.

I am sure a lot of emotions stir within you – pride in all that you have achieved, anxiety about the future, and heartache of saying goodbye to an institution that you have been a part of for the past few years.

My young friends- Let us not solely fixate on the endings, for today is also a beginning. Today, we celebrate not just the completion of a journey but the ignition of new aspirations. Always bear in mind that your learning never stops.

Friends, you are fortunate to step into adulthood at an exciting time- our अमृत काल where there is hope and possibility of all kinds.

There is in place an ecosystem that is wholesome for exploring your talent and realising your aspirations.

Let me advert to the launchpad that all of you are presently standing on – and this is a very significant launchpad in the history of this great nation that has a civilisational depth of 5000 years. You are henceforth part of the marathon march to *Viksit Bharat@2047.*

Friends, Governance, once shrouded in shadows, now embraces transparency and accountability. Corruption once the bane of the system has now yielded to the rule of law. Now all, without exception, are subject to accountability before the law. All this has paved the way for your aspirations to truly take flight and dreams to fructify.

On the economic front, our story is one of remarkable dynamism. Negotiating difficult terrain and tough challenges we have traversed from being a 'Fragile Five' global economy to the glorious status of being the fifth-largest economy, with ambitions set firmly on the third position in the global economy within a few years.

The World Bank applauds our meteoric rise in financial inclusion, achieved in just six years when others projected decades.

The IMF hails India as a global investment hotspot, acknowledging the immense opportunities we offer.

And hence, our projected GDP growth is double the global average, speaks volumes about our economic vitality and its robust premise.

Friends, our strength transcends mere numbers. It lies in the power of collective action. We are now the third-largest powerhouse in terms of purchasing power, showcasing the combined potential we hold.

Our resilient financial ecosystem, fuelled by an inclusive digital payment system, has become a global model. Not only do we use it, we export it.

Indians can now transact using UPI in seven countries, and UPI transactions alone, in 2022, accounted for nearly half of all global digital transactions.

We are not just consumers, we are innovators and leaders in this domain. We even surpass the per capita mobile data consumption of China and the US taken together. This is mobile magic!

Our aspirations extend beyond the Earth's boundaries. The momentous success of Chandrayaan-3,

marking our historic soft landing on the Moon's South Pole, exemplifies our relentless pursuit of scientific and technological advancements. We now celebrate August 23 as Space Day.

Gone are the days, mark my words, people of my age know it when a bicycle was used to carry parts for our first rocket launch. Today, we have launched over 400 satellites for other countries, developed countries including USA and Singapore.

Friends, reflect and take pride in what truly makes our *Bharat* so special!

Firstly, we stand tall in the community of nations with a civilizational legacy of over 5000 years, a rich tapestry of knowledge and wisdom that guides our present and shapes our future.

Secondly, we are the largest and most functional democracy in the world, demonstrating our commitment to inclusivity and participation.

I am not taking you to figures but imagine 500 million people have opened their bank accounts for the first time. This is the financial inclusion of the highest order ever on the planet. A hundred million gas connections have been given to needy households. These are just two figures, there can be many.

This spirit of inclusivity resonates globally. The unprecedented G20 Summit held in New Delhi stands as a testament to our leadership. Imagine, G20 footprint was in all the states and all the Union Territories of the country. It is a remarkable geographical achievement other nations can only look up to.

From engaging all states and union territories across the nation to inducting the African Union as a member of the G20 and launching the Global Biofuel Alliance, India emerged as the voice of the Global South for the first time. Such an important segment of the planet was not being noticed and now it is being noticed day in and day out.

So, dear friends, you are not just entering life but rocketing towards it. All of you are graduating into an India on the rise, India that has shaken off the label of the 'sleeping giant', India's rise is continual, incremental and unstoppable.

We are no longer a nation defined by its potential. We are a nation realizing its potential. We are a nation enabling global powers to realize their potential. We are a nation that is defining how human resource potential can be exploited.

Seize this incredible momentum, harness the transparency, leverage the economic boom, and turn the opportunities into your personal masterpieces. What do young minds need? They need a system that is free from corruption. Corruption has gone for good. Corruption is no longer a password to a contract or a recruitment process. It helps all of you.

All are equal before the law. Some thought at one point of time that they are above law, law cannot reach them, and they have immunity from the law. They are now feeling the heat of law day in and day out because democracy cannot survive, democracy cannot breathe unless there is equality before the law. Now equality before law is a ground reality for one and all.

Friends, as we navigate the contemporary scenario, we are witnessing extraordinary infrastructural growth, widespread technology penetration, rapid pace of digitization and a commitment to transparent and accountable governance. Imagine if you choose to work from home, your house in the village is as well equipped as your house in a modern metro. All the facilities that you look for are available in the villages, that is the kind of development this country has seen in the last decade.

These are not mere buzzwords; they are ground reality, as we can all witness today!

Our scientific prowess has not only earned India laurels, but has transformed the lives of ordinary citizens and has fuelled our aspirations for a brighter and more sustainable future.

We stand at a new dawn, an *Amrit Kaal* where India soars to even greater heights. Our government has sown the seeds of opportunity and growth, pouring its heart and resources into nurturing fertile ground for our collective future and particularly for our young minds, boys and girls who are before me today in large numbers virtually and physically.

As India strides towards becoming the world's third-largest economy, our young minds should engage to explore a vast landscape of possibilities, unburdened by the shackles of narrow definitions of success.

I appeal to young minds, don't be killed by competitive mechanism, obsession to hold a government position. Enormous opportunities are available to you, you just have to look and explore. You will be extremely successful, these will be rewarding for you. Grab these opportunities, they will

suit your aptitude, they will fulfil your inclinations, Go ahead in that direction.

We should now have enabling policies and initiatives for creating a space where every dream holds value, where individuality thrives, and where success is measured not by societal yardsticks, but by deep, personal fulfilment.

Let me just divert and indicate to you, Examine our startups, they've created wonders at the global level, and they have changed the economic landscape of the country. Their contribution to the economy is immeasurable, they are setting new trends. You have to take the lead when you step out into the larger world.

Let go of the obsession with traditional paths. Let us think out of the box, If you have an idea in your mind. Don't fear failure, Failures are natural, failures are success steps towards further success. A failure is a success story, it is not a failed attempt. It's an essential attempt to secure success. Just reflect that Chandrayaan-3 would not have been there if Chandrayaan-2 wouldn't have gone to that extent. Chandrayaan-2 was not a failure, it was majorly a success, Chandrayaan-3 fructified it.

Embrace the untapped potential that lies within all of you – the entrepreneur, the innovator, the changemaker.

Instead of competition, let collaboration be our guiding principle. Let us support each other, share our talents, and lift each other up as we embark on this exciting journey.

The world has to be changed when you avail opportunities that are absolutely novel and innovative. I would like to invite your attention to disruptive technologies that will dominate our lifestyles, these are fresh areas. India is one of the few nations in the world that is focusing heavily on Quantum computing, green hydrogen missions, artificial intelligence, blockchain and machine learning. All these are the areas where young minds have to contribute, if you take the lead you will make yourselves a successful person and your family proud. You'll contribute to the nation as never before and you will be true footsoldiers of Bharat taking its march to 2047.

Friends, you are stepping into a world that is increasingly driven by dynamic and new trends in disruptive technology. You have to be extraordinary, innovative, you have to be on your own. You have to be driven by your own creation, and your own thought process. Do not be guided by old-age concepts, things have dramatically changed. Take note of it.

Friends, Internet of Things, Machine Learning, Block Chain, Augmented Reality, Artificial Intelligence and Quantum Computing are your subjects not mine. You are in the front-league. Your faculty has to only initiate you. You have to lead the path, you have to be global leaders of Bharat which is home to one-sixth of humanity.

Remember, friends, true progress lies not in conforming, but in daring to be different. It lies in following your passion, charting your own course, and leaving your unique mark on the world.

Look at history, the future belongs to those who dare to dream beyond the ordinary. So, friends, as you step into this new chapter, I urge you: to embrace your individuality, pursue your passions, and redefine success on your own terms.

Bharat eagerly awaits your contributions, your new perspectives, and your innovative ideas. Believe in yourself and your capabilities.

I can assure you, I can ensure your capability, competency and academic accomplishments and your knowledge is the best in the world.

I see the destiny of *Bharat* in your eyes. You are the most significant stakeholder in the governance and rise of *Bharat*, and you will shape *Bharat* what it will be in 2047. You are the most significant stakeholders and you have to ensure that the growth trajectory of our development which is continually incremental is not only sustained but is taken to greater heights.

I encourage every one of you to be fearless in the pursuit of your dreams. Do not let your mind become a parking place for doubts and insecurities.

Instead, let it be a platform for your imagination and creativity. Remember, some of the greatest innovations and breakthroughs have come from individuals who dared to think differently, who fearlessly challenged the status quo.

Do not be afraid of failure, for it is the stepping stone to success. Let it be a catalyst for growth and self-discovery.

Together, let us build an *Amrit Kaal* where every dream takes flight, and where the true potential of our youth illuminates the path to a brighter tomorrow.

Congratulations, and may your journeys be filled with purpose, passion, and fulfillment!

Jai Hind.

CAMPUS NEWS

Inauguration of Nalanda University Campus at Rajgir, Bihar by Hon'ble Prime Minister

Hon'ble Prime Minister, Shri Narendra Damodardas Modi inaugurated the new campus of Nalanda University at Rajgir, Bihar, recently. The University is conceived as a collaboration between India and East Asia Summit (EAS) countries. Several eminent people including the Head of Missions of 17 countries attended the inauguration ceremony.

Addressing the gathering, the Prime Minister expressed delight and thanked his good fortune in visiting Nalanda within 10 days of taking oath as the Prime Minister for the third term and said that it is a positive indication towards the developmental journey of India. "Nalanda is not just a name, it is an identity, a regard. Nalanda is the root, it is the *mantra*. Nalanda is the proclamation of the truth that knowledge cannot be destroyed even though books would burn in a fire," the Prime Minister exclaimed.

The Prime Minister underlined that the establishment of the new Nalanda University would initiate the golden age of India and said, "Nalanda is a symbol of India's academic heritage and vibrant cultural exchange. This revival is going to start a golden age for India. Nalanda is not just a renaissance of India's past. The heritage of many countries of the world and Asia is linked to it. India has lived and demonstrated sustainability as a model for centuries. We move forward with progress and environment together. My mission is that India become the center of education and knowledge for the world. My mission is that India should again be recognized as the most prominent knowledge center of the world. Our endeavor is to have the most comprehensive and complete skilling system in the world in India and India to have the most advanced research-oriented higher education system in the world. I have faith that Nalanda will become an important center of global cause."

The Prime Minister hoped that the revival of Nalanda near its ancient ruins would introduce India's capabilities to the world as it will tell the world that nations with strong human values are capable of creating a better world by rejuvenating history. Shri Modi stressed that Nalanda carries the heritage of the world, Asia, and many countries and its revival is not restricted to the revival of Indian aspects. This is evident from the presence of so many countries in today's inauguration, he added acknowledging the contribution of the friendly nations in the Nalanda project. He also praised the people of Bihar for their determination to bring back its glory which is reflected in Nalanda.

Pointing out that Nalanda was once the living center of India's culture and traditions, the Prime Minister said that the meaning of Nalanda is the continuous flow of knowledge and education and this has been India's approach and thinking towards education. "Education is beyond boundaries. It inculcates values and thought while giving it shape," the Prime Minister said, highlighting that students were admitted to the ancient Nalanda University irrespective of their identities and nationalities. He also stressed the need to strengthen the same ancient traditions in the newly inaugurated Nalanda University Campus in modern form. The Prime Minister expressed delight that students from more than 20 countries are already studying at Nalanda University and said that it is the perfect example of '*Vasudhaiva Kutumbakam'*.

The Prime Minister highlighted the Indian tradition of treating education as a tool of human welfare. He mentioned the upcoming International Yoga Day and said that Yoga Day has become an international festival. He said that despite developing so many strands of Yoga, no one in India expressed any monopoly over Yoga. Similarly, India shared Ayurveda with the entire world, he said. Hon'ble Prime Minister Modi also underlined India's devotion to sustainability and said that in India, we have carried progress and environment together. This allowed India to provide initiatives like Mission LiFE and International Solar Alliance. He said the Nalanda Campus with its pioneering Net Zero Energy, Net Zero Emission, Net Zero Water, and Net Zero Waste model will carry forward the spirit of sustainability.

The Prime Minister emphasized that the development of education leads to the deepening of the roots of the economy and culture. This is borne out by the global experience and experience of the developed countries. "India that is working on its goal of becoming a developed nation by 2047 is transforming its education system", said the Prime Minister. He further added, "My mission is that India becomes the center of education and knowledge for the world. My mission is that India should again be recognized as the most prominent knowledge center of the world." Prime Minister noted initiatives like Atal Tinkering Labs catering to more than a crore children, interest in science generated by *Chandrayaan* and *Gaganyaan*, and Startup India leading to 1.30 lakh startups in India from a few hundred 10 years ago. Filing of a record number of patents and research papers and 1 lakh crore research fund.

The Prime Minister highlighted the government's efforts to create the most comprehensive and complete skilling system along with the most advanced research-oriented higher education system in the world. He also mentioned improved performances by India's universities in global rankings. Throwing light on the recent achievements in the field of education and skill development in the last 10 years, the Prime Minister mentioned a rise in the number of Indian educational institutions from 9 to 46 in QS Ranking and 13 to 100 in Times Higher Education Impact Ranking. Within the last 10 years in India, the Prime Minister informed that one university has been established every week, a new ITI has been established every day, an Atal Tinkering Lab has been opened every third day, and two new colleges have been established every day. He further added that India is home to 23 IITs today, the number of IIMs has gone up from 13 to 21 and the number of AIIMS has risen almost three times to 22. "In 10 years, the number of medical colleges has also almost doubled", he said. Touching upon the reforms in the educational sector, the Prime Minister mentioned the New Educational Policy and said that it has given a new dimension to the dreams of India's youth. Shri Modi also mentioned the collaboration of Indian and foreign universities, and the opening up of new campuses of international universities like Deakin and Wollongong. "With all these efforts, Indian students are getting the best educational institutions in India for higher education. This is also saving money for our middle class", Hon'ble Prime Minister added. The Prime Minister also planted a sapling on the occasion.

Dr. S Jaishankar, Hon'ble Minister of External Affairs graced the occasion as a Guest of Honour. In his address, he reiterated the reputation of ancient Nalanda and said, **"**You are all well conversant with the great reputation of the ancient Nalanda University for eight centuries as a center of knowledge and wisdom. It also served a larger role by connecting our society with those of our near and far neighbors, through land and sea. The exchanges that it fostered enriched our entire continent. The university's destruction marked a downturn in our history and that dark phase continued through the colonial period. In that era, we not only saw a decline in our capabilities and confidence but in our connectivity as well with those nations who are now members of the East Asia Summit. In the rebuilding of Nalanda University, there are multiple messages, both national and international.

He said that the new Nalanda is a revival of a global bridge of learning that can build relationships even further than in the past. Education, training, and capacity building are the most effective ways of promoting international understanding. This is a particular commitment that we all must have towards the Global South. I am especially glad to note that Nalanda University is already working both in India and ASEAN member states towards creating an ASEAN-India University Network. The Schools and Centres of this University have also been consciously chosen to highlight the purpose of this University. It is a matter of satisfaction that the student community is drawn from so many nations and regions of the world.

Projecting the initiative as a notable one for higher learning in India, he said that it also marks the realization of a longstanding commitment by India to the East Asia Summit grouping. It reflects the seriousness with which we pursue our Act East policy. But most of all, it underlines Bharat's endeavour to emerge as a *Vishwa Bandhu,* extending the hands of friendship and cooperation to the international community. By doing so, we contribute to the rejuvenation of civilizational linkages, the

celebration of our shared cultural heritage, and the appreciation of the immense diversity of our existence.

International Conference on Public Policy and Management

A three-day International Conference on 'Public Policy and Management' is being organized by the Centre for Public Policy, Indian Institute of Management Bangalore, on August 27-29, 2024. The interdisciplinary conference draws scholars representing diverse perspectives on public policy issues and provides a forum for showcasing the latest developments in policy research and practice. The conference hosts pre-conference activities, academic sessions, topical policy debates, workshops, panel discussions, and practitioner-oriented discussions on contemporary topics in public policy and management. Academicians, students, research scholars, policy practitioners, lawyers, NGO professionals, and others with an interest in public policy may participate in the event. The Themes for the Conference include:

- Emerging Technologies and Policy Implications.
- Policies on Climate Change and Sustainability in Industry and Agriculture.
- Policy Challenges in the Gig and Platform Economy.
- Innovations in Public Policy.

For further details, contact, Conference Secretariat, Centre for Public Policy, Indian Institute of Management Bangalore, Bannerghatta Road, Bangalore – 560076, Phone: +91-80-26993051/3323, E-mail: *cppconference@iimb.ac.in.* For updates, log on to: *www.iimb.ac.in/events.*

Short-term Course on Current Ground Improvement Practices

A five-day Short-term Course on 'Current Ground Improvement Practices in India: A Research and Industrial Advancement' is being organized by the Department of Civil Engineering, National Institute of Technology Hamirpur, Himachal Pradesh and Indian Geotechnical Society-Hamirpur Chapter on July 22-26, 2024. The Course is designed to address the critical need for updated knowledge and a practical approach to recent advancements in Ground Improvement Techniques (GIT). In construction, ground improvement works are often required to limit the settlement of structures and increase the stiffness of natural soils to increase their strength under different loadings. This course is a pivotal initiative, offering participants valuable insights into field practices for ground improvement works in India. Through theoretical learning, case studies, and demonstrated simulations, this course offers a unique opportunity to enhance participants' capacity to address specific research updates and industrial advancement in the area of ground improvement practices. The Contents of the Course are:

- Recent Trends in GIT.
- GIT used in Major Projects in India.
- Expansive Soil Stabilization Techniques.
- Sustainable Ground Improvement Method.
- Liquefaction/ Landslide Mitigation.

For further details, contact Coordinator, Dr. Meghna Sharma / Dr. Manendra Singh, Department of Civil Engineering, National Institute of Technology Hamirpur, Himachal Pradesh-177005, Mobile No: 09785121383/ 078955208814, E-mail: *meghnas@nith.ac.in / manendra@nith.ac.in.* For updates, log on to: *https://nith.ac.in/workshops-conferences/*

International Conference on Psychology Learning and Teaching

A three-day International Conference on 'Psychology Learning and Teaching' is being organised by the Department of Psychology, CHRIST (Deemed to be University), in association with the Society for the Teaching of Psychology (STP), Division 2 of the American Psychology Association (APA) and the International Council of Psychology Educators Incorporated (ICOPE Inc.) from August 01-03, 2024 at CHRIST (Deemed to be University), Bengaluru.

Psychology is a growing discipline with new fields and branches stemming in the past decade. Global changes, including the pandemic, technology, and globalisation, directly impact psychology teaching and learning. The specific issues of a community, location, or nation place a demand on psychologists to respond with sensitivity to the culture, ethnicity, and needs of the community.

Hence, psychology education is pushed to innovate and develop competent training and teaching models. The discipline requires pedagogies and assessment models to teach and assess students' knowledge, skills, values, and attitudes. The need to build foundational competencies and foster personal and professional development places a huge emphasis on the need for trained faculty. There are no formal educator training programmes for faculty in higher education. Most faculty members develop their skills through experience and experimentation within their careers. Psychology educators apply principles of psychology and education to their teaching, learning, and assessment practices. There is a growing need to document, test, and validate these practices and create evidence-based and culturally competent models that are replicable and sustainable. Psychology teaching covers teaching-learning practices in high schools to doctoral-level programmes. The Themes and Tracks for the International Conference are:

Teaching-Learning and Assessment Models in Psychology

- Teaching Models, Supervision, Mentoring, Competency-based Model.
- Signature Pedagogies- Research-informed Teaching, Case-based Teaching, Experiential Learning, Participative Learning and Problem-solving Methodologies.
- Evaluation and Feedback Methods -use of Rubrics and Open-book Exams.
- Designing Assessments.
- Curriculum Design and Development.

Teaching Psychology at Different Levels (High School-Doctoral Level)

- Teaching Introductory Psychology, Research Methods, Foundational Knowledge, Attitude and Competencies. Domain/Course-Specific Methods -Counsellor Education, Developmental, Social, Organisational, Clinical, Cognitive, Neuropsychology, Health, Educational Psychology, Experimental Psychology, Research Methods and Assessments.

Psychology Educators' Experience, Perceptions and Challenges

- Challenges to Psychology Education.
- Training and Professional Development for Educators.
- Community of Practice.
- Personal and Professional Development.
- Educator Mental Health and Well-being.

Psychology Student's Engagement and Experiences

- Internship, Apprenticeship, Service Learning, Professional Development.
- Student Mental Health and Well-being.
- Positive and Challenging Experiences in Classrooms.

Leadership, Governance, and Policies in Psychology Education

- Policies and Programmes, Benchmarking, Internationalization.
- Licensure and Certification, Role of International and Local Organizations.
- Ethical Practice in Teaching and Learning.

Current Trends and Future Directions in Teaching Psychology

- Decolonolising Psychology Education, Indigenous Psychology.
- Cultural Perspectives, Psychological Literacy.
- Teaching for Sustainability, Peace, Inclusivity.
- Role of Artificial Intelligence and Technology.

For further details, contact Conference Chair, Dr Aneesh Kumar, Department of Psychology, CHRIST (Deemed-to-be-University), Dharmaram College Post, Hosur Road, Bengaluru- 560029, Karnataka, E-mail: *iplat.conference@christuniversity.in.* For updates, log on to: *https://icplt.christuniversity.in/*

AIU News

AIU Welcomes Prof Vinay Kumar Pathak The New President of AIU

Professor Vinay Kumar Pathak, Vice Chancellor, Chhatrapati Shahu Ji Maharaj University, Kanpur (Uttar Pradesh) took over as the President of the Association of Indian Universities, New Delhi on 1st July 2024. An exemplary scholar, Prof Pathak completed his undergraduate education at the prestigious institution Harcourt Butler Technological Institute, Kanpur (now known as HBTU, Kanpur). He is also an alumnus of the renowned Indian Institute of Technology, Kharagpur. A computer scientist by training, Prof. Pathak has a career ranging over twenty-six years of visionary leadership as faculty of Computer Science, Professor and Dean of the School of Computer Sciences, Harcourt Butler Technical University, Kanpur, and the Vice Chancellor of eight different Universities in Uttar Pradesh, Rajasthan, and Uttarakhand.

An Excellent Administrator, Prof. Pathak has had a long career as a Vice Chancellor of eight universities nationwide. He excellently has managed multiple Universities for three full terms, namely Uttarakhand Open University, Haldwani, Vardhaman Mahaveer Open University (VMOU), Kota with an additional charge of Rajasthan Technical University, Kota; Dr. APJ Abdul Kalam Technical University with an additional charge of HBTU, Kanpur, Khawaja Moinuddin Chishti Language University, Lucknow and Chhatrapati Shahu Ji Maharaj University, Kanpur with an additional charge of Dr. Bhimrao Ambedkar University, Agra. This remarkable feat of inspiring multitasking speaks of his outstanding leadership qualities.

In all his administrative capacities, he has steered numerous institutions into the era of technological advancement with the available resources. He recently, in 2024, was unanimously elected as the President of the Association of Indian Universities, New Delhi, after serving there as the Vice President for a year. His administrative philosophy is guided by the unwavering belief in the amalgamation of traditions with futuristic progressions to confide the pace and direction of growth and development on the giant shoulders of our ancestorial epistemology and axiology.

Prof. Pathak's unwavering commitment to the scholarly pursuit, amid his highly occupied administrative roles, can be measured by his forty-six-research publication in various international journals of repute in the field of computer technologies and a patent for an 'adjustable mounting system for solar panel arrays with clamping and securing mechanisms'. However, these numbers do not measure the everyday innovations he makes as an administrator. He is known to constantly guide the development team to produce logic for systems of management that are largely unheard of.

Prof. Pathak does not believe in gatekeeping any kind of progress or knowledge; hence, he has been sharing his ideas with the students and enthusiasts of the discipline through more than two dozen special presentations and lectures in the area of computer science. He proudly has guided ten students in the Doctoral degrees, who have greatly benefitted from his expertise. Prof. Pathak is also an enthusiastic speaker in the area of Administration and Practical Usage of Technological Advancements for Universities, for which he has been invited to various South-Asian and European nations to share his wisdom and motivate the new generation of higher education administration.

Prof. Pathak's contribution to the higher education administration is unfathomable. Serving his role as the 'Son of Soil,' he has contributed as an active member of the Task Force Committee for New Education Policy implementation in Uttar Pradesh. His technological finesse has been recognized by the state and national governments who have entrusted him as a member of the Council of Science and Technology, Uttar Pradesh, All India Board of Undergraduate Studies in Engineering and Technology, All India Council for Technical Education (AICTE); and NUEPA Council, and National Council of Educational Research and Training (NCERT). His tremendous leadership acumen is also recognized by various bodies who have appointed Prof. Pathak as the Chairman of the Expert Committee of Vice Chancellors for the development of E-learning material appointed

by the Governor of Uttar Pradesh, along with the Chairman of the Technical Committee of MP Bhoj Open University, Madhya Pradesh.

Prof. Pathak has been a well-respected member of the Board of Governors of various Institutions of National Importance such as IIIT, Lucknow, and IIT, BHU. He is believed to have a positive aura that can turn a humble institution into a powerhouse like Chitrakoot Gramodaya University, Chitrakoot, and Rajiv Gandhi Tribal University, Udaipur, along with companies like the Rajasthan Knowledge Corporation Limited, where he was a member of the establishment committee in Rajasthan. Prof. Pathak has unnerving trust in the power of Indian Values and traditions which is also seen in his work as a member of the national committee for implementation of the model curriculum on Universal Human Values for all technical institutions across the nation. His contribution to the field of administration and the advancement of human values is recognized by the Global- eLearning Award, 2012, and Humanitarian Award, 2021.

Prof. Pathak, in his star-studded career, has worked extensively for intersectional access of technology and education by people irrespective of their backgrounds. His ideas, though extremely advanced, are rooted in the beliefs of soil and nation. His ideas of tech-based education and administration can be seen in practice at all the universities where students from various backgrounds are acquainted with advanced systems of teaching-learning material, assessment, and bureaucracy. Prof. Pathak is revered by his students for his belief in the constitutional values of democracy. He is known for inviting students to take charge of their educational life cycle at the universities by taking active roles in various student bodies. Prof. Pathak, in his professional demeanor, demonstrates an impressive level of warmth and understanding. His careful listening and considerate replies to each person demonstrate his sincere concern for the welfare of everyone. This kind of approach fosters rapport and trust between coworkers and constituents in addition to improving communication. Prof. Pathak is known to create a welcoming and inclusive atmosphere that promotes cooperation and respect for one another by continuously exhibiting qualities like empathy and understanding.

The Association of Indian Universities welcomes him as its new President and is looking forward to gaining from his administrative and academic acumen, scholarship, and vast experience.

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THESES OF THE MONTH

SCIENCE & TECHNOLOGY

A List of doctoral theses accepted by Indian Universities
(Notifications received in AIU during the month of April-May, 2024)

AGRICULTURAL & VETERINARY SCIENCES

Horticulture

1. Singh, Jyoti. **Effect of nitrogen, phosphorus and potassium level on spike yield, bulb production and floral attributes of Gladiolus (Gladiolus grandiflorus L) cv Nova Lux**. (Dr. Jitendra Kumar), Department of Horticulture, Rama University, Kanpur.

BIOLOGICAL SCIENCES

Bioresources

1. Mushtaq, Naveed Ul. **Understanding adaptive responses of panicum miliaceum L (Proso millet) under salt stress**. (Dr. Reiaz ul Rehman and Prof. Inayatullah Tahir), Department of Bioresources, University of Kashmir, Srinagar.
2. Qadri, Imtiyaz Ahmad. **Analysis of factors contributing to drug resistance in Candida species and interaction with human host**. (Dr. Manzoor A Mir and Dr. Peer Abdul Haseeb Shah), Department of Bioresources, University of Kashmir, Srinagar.

Biotechnology

1. Ramya, L. **Identification of sperm novel transcripts and RNA elements influencing semen quality and fertility in Murrah Buffalo**. (Dr. S Selvaraju), Department of Biotechnology, Jain University, Bangalore.

Life Science

1. Ahmad, Md Naiyaz. **Identification and biological evaluation of hit molecule(s) for mycobacterial diseases**. (Dr. Arunava Dasgupta), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
2. Anto, Eveline M. **"Investigation on the role of tangeretin in alleviation of ER stress induced diabetic complications: An in vitro approach**. (Dr. P Jayamurthy), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
3. Behera, Swarnaprava. **Diversity, distribution of human and fish pathogenic bacteria from Coastal marine habitats: Characterization of antibiotic resistance**. (Dr. T N R Srinivas), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
4. Farooq, Samira. **Physiological and biochemical aspects of flower senescence with an impact on postharvest performance in select ornamentals of plantaginaceae**. (Prof. Inayatullah Tahir), Department of Botany, University of Kashmir, Srinagar.
5. Jesmina, A S. **Characterization and exploration of secondary metabolites from two Streptomyces species for enhanced antibacterial activity against selected human pathogens**. (Dr. Ravi Shankar L), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
6. Naruka, Devyani. **Experimental studies on psidium guajava linn with particular reference to phytochemistry, nanoparticle synthesis and its biological activity**. (Dr. Richa Bhardwaj), Department of Botany, IIS University, Jaipur.
7. Rashim Kumari. **Value added food products for immunomodulation based on underutilised grains**. (Dr. Mahesh Gupta), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
8. Saraswat, Saurabh. **Designing novel membrane active peptides and understanding their mechanism of action**. (Prof. Archana Chugh), Kusuma School of Biological Sciences, Indian Institute of Technology Delhi, New Delhi.
9. Singh, Himalaya. **Elucidating the role of lymphangiogenesis and angiogenesis in cardiovascular diseases**. (Dr. Kumaravelu Jagavelu), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
10. Singh, Raghwendra Pratap. **Association of microbiome and host immune responses in oral squamous cell carcinoma**. (Dr. Rashmi Kumar), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
11. Taniya, M S. **In vitro studies on the effects of bioactives from quinoa and Amaranth seeds against breast cancer and inflammation**. (Dr. Priya S), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
12. Umesh Singh. **Bioprocess development for the large scale production of vitamin D enriched mushroom mycelia**. (Prof. Sataywati Sharma), Centre for Rural

Development & Technology, Indian Institute of Technology Delhi, New Delhi.

Microbiology

1. Chakraborty, Meghna. **Bioprospecting of basidiomycetes for L-asparaginase: Production and application**. (Dr. Srividya Shivakumar), Department of Microbiology, Jain University, Bangalore.
2. Chauhan, Bijal Dineshbhai. **Bioconversion of plant biomass for value added products**. (Dr. Prateek Shilpkar), Faculty of Biological Sciences, Gujarat Vidyapith, Ahmedabad.

ENGINEERING SCIENCES

Biochemical Engineering

1. Jana, Anirban. **Elucidation of the role of neuronal differentiation factors belonging to the neurod family in glioblastoma**. (Prof. Ritu Kulshreshtha), Department of Biochemical Engineering and Biotechnology, Indian Institute of Technology Delhi, New Delhi.

Civil Engineering

1. Gupta, Purva. **Development of a decentralized and automated contract management system for construction projects**. (Prof.K N Jha), Department of Civil Engineering, Indian Institute of Technology Delhi, New Delhi.
2. Khalid, Mohd Aman. **Reliability based robust design optimization of structures**. (Prof. Sahil Bansal), Department of Civil Engineering, Indian Institute of Technology Delhi, New Delhi.
3. Rahman, Saba. **Wind induced vibration of tall chimneys**. (Prof. A K Jain, Prof.K N Jha andProf. S D Bharti), Department of Civil Engineering, Indian Institute of Technology Delhi, New Delhi.
4. Rana, Samridhi. **Understanding the effect of mixture of metal oxide nanoparticles to algae-bacteria consortia**. (Prof. Arup Kumar), Department of Civil Engineering, Indian Institute of Technology Delhi, New Delhi.

Computer Science & Engineering

1. Bokefode, Jayant Dipak. **Development and analysis of ensemble machine learning models for health informatics**. (Dr. Panduranga Rao M V), Department of Computer Science & Engineering, Jain University, Bangalore.
2. Chawla, Shobha. **Development of proxy based revocable framework for attribute based encryption**. (Dr. Neha Gupta), Department of Computer Application, Manav Rachna International Institute of Research and Studies, Faridabad.
3. Khan, Mubeen Ahmed. **WiMAX relay network optimization for next generation internet access**. (Dr. Awanit Kumar and Dr. Kailash Chnadra Bandhu), Department of Computer Science & Engineering, Sangam University, Bhilwara.
4. Lakineni, Prasanna Kumar. **An efficient brain tumor detection using hybrid machine learning techniques on MRI data**. (Dr. N Sudhakar Reddy), Department of Computer Science & Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.
5. Nirmal Singh. **Design & implementation of the smart IOT based system for improving the efficiency of warehouse**. (Dr. Vikas Somani and Dr. Sunil Kumar), Department of Computer Science & Engineering, Sangam University, Bhilwara.
6. Rao, K Venkateswara. **Stock market price prediction using feature optimization and hybrid machine learning techniques**. (Dr. B Venkata Ramana Reddy), Department of Computer Science & Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.
7. Santhosh, S. **Designing a model for cloud-based software development life cycle with metric analysis and implementation**. (Dr. Narayanaswamy Ramaiah), Department of Computer Science and Engineering, Jain University, Bangalore.
8. Saxena, Stuti. **Implementation of fast and reliable multi spectral IRIS segmentation using deep learning**. (Dr. Vikas Somani Bandhu), Department of Computer Science & Engineering, Sangam University, Bhilwara.
9. Thakrar, Zalak Tarunbhai. **Design and development of DSS for fishermen to catch fishes from sea based on data analysis using GPS and machine learning techniques**. (Dr. Atul M Gonsai), Department of Computer Science, Saurashtra University, Rajkot.
10. Wosowei, Julius Binadoumine. **An enhanced integrated digital design of an oilfield: A case study of Shell Petroleum Development Company of Nigeria**. (Dr. Chandrasekar Shastry), Department of Computer Science & Engineering, Jain University, Bangalore.

Electrical & Electronics Engineering

1. Ganeswari, Jakkula Adi. **Analysis of PV fed PMSM drive using different boost converter topologies**. (Dr. R. Kiranmayi), Faculty of Electrical Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.
2. Jain, Chandra Prakash. **Artificial neural network based performance enhancement of grid connected PV system**. (Dr. Vinesh Agarwal), Department

of Electrical Engineering, Sangam University, Bhilwara.

3. Kumudwathi, M. **Integrated microgrid system performance improvement using GA based economic model predictive control**. (Dr. G Sreenivasan and Dr. R Kiranmayi), Department of Electrical & Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.
4. Munisekhar, S. **Adaptive constant voltage MPPT algorithm for PV FED BLDC motor for air-conditioning applications**. (Dr. P Sujatha), Department of Electrical & Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.
5. Ravikumar, K I. **Design and implementation of RRAM for ANN based applications**. (Dr. R Sukumar), Department of Electronics Engineering, Jain University, Bangalore.
6. Saini, Rakesh Kumar. **Design and development of ultrasensitive SERS substrate for pesticide detection**. (Dr. Rahul Prajesh), Faculty of Engineering Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
7. Tripathi, Ayush. **DeMoAiR: Deep learning based multi-modal airwriting recognition for smart wearables**. (Prof. Lalan Kumar and Prof. Prathosh A P), Department of Electrical Engineering, Indian Institute of Technology Delhi, New Delhi.
8. Vasu, Mattukuru. **An investigation of islanding detection methods for utility-interactive inverter for photovoltaic systems**. (Dr. D Lenine and Dr. R Kiranmayi), Department of Electrical Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

Electronics & Communication Engineering

1. Mannem, Kiran. **Enhancing connectivity in LTE HETNETS: Novel approaches for efficient target cell selection and handoff management**. (Dr. P. Nageswara Rao and Dr. S. Chandra Mohan Reddy), Department of Electronics & Communication Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

Energy Studies

1. Ali, Sana Fatima. **Building energy optimization and algorithm parameter tuning for thermal and daylight performance**. (Prof. Dibakar Rakshit), Department of Energy Science & Engineering, Indian Institute of Technology Delhi, New Delhi.
2. Marwaha, Akshey. **Characterization of backfire and postfire in a hydrogen fuelled spark ignition engine**. (Prof. K A Subramanian), Department of Energy Science & Engineering, Indian Institute of Technology Delhi, New Delhi.
3. Rao, Deevela Niranjan. **Techno-economics of solar PV based hybrid power systems for telecom towers in India**. (Prof.Tara C Kandpal and Prof. Bhim Singh), Department of Energy Science & Engineering, Indian Institute of Technology Delhi, New Delhi.
4. Sharma, Punit. **Unravelling the role of defects in hybrid semiconductor material: A holistic exploration of their influence on opto-electronic device performance**. (Prof. Supravat Karak), Department of Energy Science & Engineering, Indian Institute of Technology Delhi, New Delhi.

Food Science & Technology

1. Mishra, Sushreesmita. **Vibro-fluidized bed drying of small cardamom (Elettaria cardamomum maton)**. (Prof. J K Sahu), Centre for Rural Development & Technology, Indian Institute of Technology Delhi, New Delhi.

Material Science and Engineering

1. Badatya, Simadri. **Lead free piezoelectric nanostructures based flexible hybrid nanogenerator for energy harvesting and self-powered sensors**. (Dr. Manoj Kumar Gupta), Faculty of Engineering Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
2. Chaturvedi, Ashish Kumar. **Investigation of mechanical, electrical and thermal properties of carbon nanotubes/nanostructures reinforced industrial inorganic waste based hybrid composite materials**. (Dr. Manoj Kumar Gupta,), Faculty of Engineering Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
3. Maity, Supriya. **Design and fabrication of anti (-bio) fouling nanostructured membranes using responsive microgels**. (Prof. Bijay Prakash Tripathi), Department of Material Science, Indian Institute of Technology Delhi, New Delhi.
4. Satendra Kumar. **Investigation of structures, growth mechanism, and properties of sp2 carbon for flexible supercapacitor**. (Dr. Surender Kumar), Faculty of Engineering Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

Mechanical Engineering

1. Biswal, Sailendu. **Crack growth initiation and propagation due to closing pore in a natural quasi-brittle orthotropic solid**. (Prof. Gaurav Singh), Department of Applied Mechanics, Indian Institute of Technology Delhi, New Delhi.

2. Dan, Alinjar. **Stability analysis of biped robots**. (Prof. S K Saha and Prof. Rama Krishna K), Department of Mechanical Engineering, Indian Institute of Technology Delhi, New Delhi.
3. Garai, Sourav. **Thermo-magneto-convective transport of nano-fluids around stationary/ rotating solid bluff objects at low reynolds numbers**. (Dr. Dipankar Chatterjee), Faculty of Engineering Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
4. Patel, Yogesh Maheshbhai. **Holographic imaging flow cytometry using three- dimensional microfluidic hydrodynamic focusing**. (Prof. Supreet Singh Bahga), Department of Mechanical Engineering, Indian Institute of Technology Delhi, New Delhi.
5. Sen, Suvadeep. **Creep fatigue interaction study of steam turbine rotors using continuum damage mechanics and computationally efficient numerical techniques**. (Prof. B P Patel), Department of Applied Mechanics, Indian Institute of Technology Delhi, New Delhi.
6. Vishnu, S. **Multibody modeling and hunting analysis of rail vehicles**. (Prof. S P Singh and Prof. S K Saha), Department of Mechanical Engineering, Indian Institute of Technology Delhi, New Delhi.

Nanotechnology

1. Namsheer, K. **Investigation on tunable properties of low dimensional functional materials for energy storage and conversion applications**. (Prof. Chandra Sekhar Rout), Department of Nanotechnology, Jain University, Bangalore.

Textile & Fiber Engineering

1. Kuldip Singh. **Electromagnetic Interference shielding and joule heating properties of activated carbon fabrics**. (Prof. Vijaykumar Narayabdas Baheti), Department of Textile and Fibre Engineering, Indian Institute of Technology Delhi, New Delhi.
2. Sharma, Ankita. **Development of alginate based antimicrobial hemostatic dressings**. (Prof. Samrat Mulhopadhyay, Prof. Bhuvanesh Gupta and Prof. Amlan Gupta), Department of Textile and Fibre Engineering, Indian Institute of Technology Delhi, New Delhi.

MATHEMATICAL SCIENCES

Mathematics

1. Sharma, Himashu. **Stability and monogenity of iterates of polynomials**. (Prof. Ritumani Sarma and Prof. Shanta Laishram), Department of Mathematics, Indian Institute of Technology Delhi, New Delhi.

MEDICAL SCIENCES

Ayurveda

1. Borakhade, Vasundhara Ramdas. **Randomized open controlled clinical trial on efficacy of Rasanjan Ghanvati in sthaulya with special reference to obesity with insulin resistance**. (Dr. Suryakiran Wagh), Faculty of Ayurved, Maharashtra University of Health Sciences, Nashik.
2. Borkar, Kanchan Madhukar. **Study the add on effect of Snuhi Taila with Diosmin and Hesperidin in management of varicose vein in parous women**. (Dr. Vijay Ukhalkar), Faculty of Ayurved, Maharashtra University of Health Sciences, Nashik.
3. Chavan, Shital Onkarsing. **Anovulatory action assessment of orally administered Dhatri Yog Churna and contraceptive pills in wistar rats**. (Dr. Yeshwant R Patil), Faculty of Ayurved, Maharashtra University of Health Sciences, Nashik.
4. Jain, Atul Shitalnath. **Anatomical study of Greeva Kasheruka in bank employees exposed to prolonged use of computer with special reference to Krukatika Marma: A cross sectional study**. (Dr. Vinod M Choudhari), Faculty of Ayurved, Maharashtra University of Health Sciences, Nashik.
5. Tryambakrao, Vipin Tongale. **Study of safety and efficacy of local application of Apamarga Kshar ointment in the management of Aabhyantar Gudarsh with special reference to internal haemorrhoids: Randomized controlled clinical study**. (Dr. Vijay Ukhalkar), Faculty of Ayurved, Maharashtra University of Health Sciences, Nashik.

Physiology

1. Dubayya, Shriram Veena. **Study of clinical profile and lung function tests in Chronic Obstructive Pulmonary Disease (COPD) patients and its comparison with healthy subjects**. (Dr. N V Aundhakar), Faculty of Medicine, Maharashtra University of Health Sciences, Nashik.

PHYSICAL SCIENCES

Chemistry

1. Akhtar, Naved. **Metal-organic frameworks supported Earth-abundant metal catalysts for sustainable chemical synthesis**. (Prof. Kuntal Manna), Department of Chemistry, Indian Institute of Technology Delhi, New Delhi.
2. Arunkumar, L. **Synthesis and anticancer evaluation of some new N-O-and S containing heterocyclic compounds**. (Prof.M Ravinder), Department of Chemistry, Chaitanya (Deemed To Be University), Hyderabad.

3. Balu, Aand Dnyaneshwar. **Development of an integrated continuous flow platform for the synthesis of phthalides, benzhydrols, diazomethane, and sartan derivatives**. (Dr. Ajay Kumar Singh), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
4. Desireddi, Janardana Reddi. **Total synthesis of γ-lactone containing natural products: Harvestmen lactone, Vittarilide-B Japanese organge fly lactone and marliolide**. (Prof. M Ravinder), Department of Chemistry, Chaitanya (Deemed To Be University), Hyderabad.
5. Dhamal, Chirag Hareshbhai. **Analytical method development, validation and degradation studies of bio-active molecules**. (Dr. H S Joshi), Department of Chemistry, Saurashtra University, Rajkot.
6. Duda, Madhavilatha. **Synthesis of nitriles, chalcones porphyrins, chromones and evaluation of their biological activity**. (Dr. V Amarnath), Department of Chemistry, Chaitanya (Deemed To Be University), Hyderabad.
7. Mamidi, Sreenivas Reddy. **Synthesis of some new heterocycles containing 1,2,3 triazole pharmacophore and their anticancer evaluation**. (Prof. Satheesh Kumar Nukala), Department of Chemistry, Chaitanya (Deemed To Be University), Hyderabad.
8. Mohit. **Design, synthesis and biological evaluation of nitrogen containing heterocyclic ligands to combat multifaceted Alzheimer's disease**. (Dr. Sandip B Bharate), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
9. Nayak, Alok Kumar. **Solvent extraction study of some strategic metals from synthetic solution/ leach liquor**. (Dr. Kadambini Sarangi), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
10. Patel, Palak. **Correlation between structure, entropy and dynamics in multi-species systems**. (Dr. Sarika Maitra Bhattacharyya), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
11. Sagam, Ravi Kumar Reddy. **Design and synthesis of some new heterocyclic hybrids and their anticancer evaluation**. (Prof. T Narasimha Swamy), Department of Chemistry, Chaitanya (Deemed To Be University), Hyderabad.
12. Samal, Kanyanjali. **Synthesis, characterization and applications of five membered N-heterocycles**. (Dr. Anita Pati), Department of Chemistry, Kalinga Institute of Industrial Technology, Bhubaneswar.
13. Shamjith, S. **Design and synthesis of cyclometallated iridium molecular probes with targeted image-guided therapeutic capabilities for cancer management**. (Dr Kaustab Kumar Maiti), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
14. Vasu, Amrutham. **Synthesis of nitrogen-containing compounds via use of microporous and mesoporous alumino-silicates**. (Dr. N Narendra), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
15. Vijendra Singh. **Catalyst development studies for the value addition of industrial feedstocks**. (Dr. Nagabhatla Viswanadham), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

Physics

1. Das, Sathi. **Development of scalable and cost-effective SERS substrates for bio-photonics application**. (Prof. D S Mehta), Department of Physics, Indian Institute of Technology Delhi, New Delhi.
2. Ghosh, Abhishek. **Growth and modifications of thermoelectric properties of antimony telluride thin film through band engineering, carrier filtering, and substrate effect**. (Prof.B R Mehta and Prof. Rajendra Singh), Department of Physics, Indian Institute of Technology Delhi, New Delhi.
3. Himanshu. **Spin-to-charge conversion and spin-orbit torque in heterostructures utilizing van der waals materials and non-collinear antiferromagnets**. (Prof. P K Muduli), Department of Physics, Indian Institute of Technology Delhi, New Delhi.
4. Khan, Sabiha. **Theoretical investigation of the effect of doping on the electronic structure of graphene**. (Prof.K S Sharma and Dr. Varsha Goyal), Department of Physics, IIS University, Jaipur.
5. Pathak, Mansi Prashant. **Supercapacitor electrodes based on transition metal oxides/ chalcogenides and their nanocomposites**. (Prof. Chandra Sekhar Rout), Department of Physics, Jain University, Bangalore.
6. Prakash, R Mithun. **Mechanistic investigations on the phase formation of unary metal oxynitride systems and their photocatalytic applications**. (Dr. Sakar Mohan), Department of Physics, Jain University, Bangalore.

❑

अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छ.ग.)

कोनी पुलिस थाना के सामने, बिलासपुर–रतनपुर मार्ग,
कोनी, बिलासपुर (छ.ग.) पिन–495009,
वेबसाईट www.bilaspuruniversity.ac.in,
ईमेल–आईडी registrar@bilaspuruniversity.ac.in

क्रमांक / 538 / स्था.प्रशा. / 2024 बिलासपुर, दिनांक 05.07.2024

शुद्धि–पत्र

विज्ञापन क्रमांक / 459 / Estt.Admn/Rec- / 2024 बिलासपुर, दिनांक 14.06.2024 के द्वारा शिक्षकीय पदों के लिए विज्ञापन जारी किया गया है। उक्त विज्ञापन में पदों की स्थिति, के संबंध में शुद्धि–पत्र क्रमांक 537 दिनांक 05.07.2024 को जारी किया गया है।

विस्तृत जानकारी विश्वविद्यालय की वेबसाईट www: bilaspuruniversity.ac.in पर देखी जा सकती है।

कुलसचिव

CENTRAL UNIVERSITY OF RAJASTHAN, KISHANGARH

Reaccredited to Grade A++ by NAAC

Advt : CURAJ/R/F.159/2024/1185 Date : 25.06.2024

ADVERTISEMENT

Online application in the prescribed format are invited from eligible Indian Citizens for the post of **Registrar** to be filled on direct recruitment / deputation / contract basis in the University. For application, details of minimum eligibility, emoluments, age of Superannuation and other service conditions, please visit University website i.e. **www.curaj.ac.in**. The notification for any future amendment will be published on University website only.

Name of Post	No. of Post and Category	Pay Level	Age Limit
Registrar	(01 - UR)	Pay Level-14 (Rs. 1,44,200 - 2,18,200)	For the post of **Registrar** preferably **below 60 Years** of age, on closing date of the advertisement.
Application Fee	**Rs. 1500/-** (for General / OBC / EWS category)		
	Rs. 750/- (for PWD / SC / ST category)		

Last Date for Submission of online application form
02 August 2024 upto 23:59 PM

Last Date for Submission of Hardcopy of application form
03 August 2024 upto 05:00 PM

On the following address in an envelope duly superscripted
"Application for the post of Registrar"
Registrar (Recruitment Cell) Central University of Rajasthan
NH-8, Bandarsindri, Kishangarh, District-Ajmer 305817 (Rajasthan)

Application received after last date of submission will not be considered and are liable to be summarily rejected.

Registrar (i/c)

हरियाणा केंद्रीय विश्वविद्यालय
CENTRAL UNIVERSITY OF HARYANA

(NAAC Accredited 'A' Grade University)
MAHENDERGARH - 123031 (HARYANA)

EMPLOYMENT NOTICE

Advt. No.: CUH/02/NT/R/2024 **Date: 01-07-2024**

Online applications are invited from the eligible candidates for appointment to the post of Executive Engineer (against the lien vacancy). Online application form, Advertisement and other details are available on the University's Website **www.cuh.ac.in.** Any corrigendum, addendum, etc. will be uploaded on the University's website only. The last date for applying online is **22-07-2024, 11:55 PM.**

REGISTRAR

B A M COLLEGE, MALLAPALLY
THURUTHICAD P.O.

Kerala - 689597
Phone: 0469 2682241, 8078292241
Email: office@bamcollege.ac.in
Website: www.bamcollege.ac.in

WANTED

Applications are invited from eligible candidates for the following Non-Teaching Staff position.

Librarian (UGC post) - 1 Open

Age, qualification and scale of pay as per UGC/ MG University/Government of Kerala rules. The appointment is subject to the approval of MG University/Government. Application forms can be obtained from the College office or downloaded from college website on payment of Rs.500/- to the account number mentioned in the application form. **Apply with in one month** of this notification.

Mallappally (S/d)
04/07/2024 Manager

CENTRAL UNIVERSITY OF RAJASTHAN, KISHANGARH

Reaccredited to Grade A++ by NAAC

Category-I Status by UGC

CURAJ/R/F.159/2024/1254 Date : 02.07.2024

EXPRESSION OF INTEREST (EOI)

Central University of Rajasthan is inviting Expression of Interest (EOI) to coach University students in various sports / games.

University intends to have **dynamic and experienced coaches dedicated to training & guiding, enhancing overall athletic experience, and motivating students** to participate in various tournaments in below mentioned games :-

- **Cricket**
- **Football**
- **Hockey**
- **Basketball**
- **Volleyball**
- **Handball**
- **Kabaddi**
- **Badminton**
- **Table Tennis**
- **Boxing**
- **Athletics**

Interested candidates can apply through **Google** form **link https://forms.gle/4XxHAxBRi9JGaEYK9** and send the complete documents to the undersigned on or before **2:00 PM** up to **22.07.2024,** in a sealed envelope.

Registrar

For detailed information visit : www.curaj.ac.in

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Patpanhale Education Society

Patpanhale Arts, Commerce & Science College, Patpanhale

At & Post- Patpanhale, Tal-Guhagar, Dist-Ratnagiri, Pin – 415724

Email ID- scp523@yahoo.in

AIDED

APPLICATIONS ARE INVITED FOR THE FOLLOWING CLOCK HOUR BASIS (CHB) POSTS FROM THE ACADEMIC YEAR 2024-2025:

Sr. No.	Cadre	Subject	Total No. of CHB Posts	Category
1	Assistant Professor	Marathi	01	01 – OPEN
2	Assistant Professor	Mathematics	01	01 – OPEN
3	Assistant Professor	Geography / Environmental Studies	01	01 – OPEN
4	Assistant Professor	English	02	02 – OPEN
5	Assistant Professor	Accountancy	02	02 – OPEN

The above posts are open to all, however candidates from any category can apply for the post.

Reservation for women will be as per University Circular No. BCC/16/74/1998 dated 10th March, 1998. 4% reservation shall be for the person with disability as per University Circular No. Special Cell/ICC/2019-20/05 dated 05th July, 2019.

Candidates having knowledge of Marathi will be preferred.

"Qualification, Pay Scale and other requirement are as prescribed by the UGC Notification dated 18th July, 2018 Government of Maharashtra Resolution No. Misc-2018/C.R. 56/18/UNI-1, dated 8th March, 2019 and University Circular No. TAAS/(CT)/ICD/2018-19/1241, dated 26th March, 2019 and revised from time to time."

Remuneration of the above post will be as per University Circular No. TAAS (CT)/01/2019-2020, dated 02nd April, 2019 and University Circular No. CTAU/23/2021-2022, dated 25th January, 2022.

The Government Resolution & Circular are available on the **website: mu.ac.in.**

Application with full details should reach the **Principal**, **Patpanhale Education Society's Patpanhale Arts, Commerce & Science College, At & Post -Patpanhale, Tal- Guhagar, Dist- Ratnagiri, Pin – 415724 within 15 days from the date of publication of this advertisement. This is University approved advertisement.**

(Bhalchandra R. Chavan),
Chairman,
Patpanhale Education Society

(Dr. Desai P. A.),
In-charge Principal,
Patpanhale Arts, Commerce & Science College

Shri Vishweshwar Shikshan Prasarak Mandal's

SHIVLINGESHWAR COLLEGE OF PHARMACY

Almala, Tq. Ausa, Dist. Latur - 413 520, Maharashtra, India
Approved By PCI, New Delhi, DTE, Mumbai & Affiliated to SRTMU, Nanded & MSBTE, Mumbai.

WANTED

Applications are invited for the post of Principal to be filled in Shivlingeshwar College of Pharmacy, (Permanent Non Granted), Almala, Tq. Ausa, Dist. Latur run by Shri Vishweshwar Shikshan Prasarak Mandal, Almala,Tq. Ausa, Dist. Latur. Eligible candidates should submit their application along with all necessary documents **within Fifteen days** from the date of publication of the Advertisement by Registered post only.

Sr. No.	Name of Post (Designation)	No. of Posts	Reservation
01	Principal	01	Unreserved

i. Essential:

1. Ph. D. Degree and First Class or equivalent at either Bachelor's or Master's level in the relevant branch
2. At least two successful Ph.D. guided as supervisor / Co-Supervisor and minimum 8 research publications in SCI journals / UGC / AICTE approved list of journals.
3. Minimum 15 years of experience in teaching / research/ industry, out of which at least 3 years shall be at the post equivalent to that of Professor.

ii. Notes:

1. This position shall be of contractual in nature for 5 years and can be extended for one more term depending upon the performance.
2. Performance assessment shall be carried out through a committee appointed by the affiliating university.
3. After completing the final term, the incumbent shall join back his / her parent organization in the previous designation from where he / she has proceeded with the designation as Professor / Senior Professor as the case may be.

iii. Salary & Allowances: -

Pay scale as per the U.G.C., PCI, State Government & Swami Ramanand Teerth Marathwada University's rules from time to time.

Note:-

1. Prescribed application form is available on the University **website (www.srtmun.ac)**
2. No T.A./D.A. will be paid to attend the interview.
3. Eligible candidates those are already in services should submit their applications through proper channel.
4. All attested Photocopies of certificates and other relevant documents should be attached with the application form.

Sd/-
Secretary,
Shri Vishweshwar Shikshan Prasarak Mandal,
Almala, Tq. Ausa, Dist. Latur-413520

Tale Vibhag shikshan Prasarak Mandal's
D. G. Tatkare Arts & Commerce College, Tala
Taluka – Tala, Dist – Raigad - 402 111. Maharashtra
Reaccredited with 'A' Grade by NAAC,

APPLICATIONS ARE INVITED FOR THE FOLLOWING CLOCK HOUR BASIS POSTS FOR THE ACADEMIC YEAR 2024 – 2025.

AIDED

Sr. No.	Cadre	Subject	Total No. of CHB Posts	Category
1.	**Assistant Professor**	Marathi	02	02 - OPEN
2.	**Assistant Professor**	English	01	01 - OPEN
3.	**Assistant Professor**	Mathematics	01	01 - OPEN
4.	**Assistant Professor**	Accountancy	02	02 - OPEN

The above posts are open to all, however candidates from any category can apply for the post.

Reservation for women will be as per University Circular No. BCC/16/74/1998 dated 10th March, 1998. 4% reservation shall be for the persons with disability as per University Circular No. Special Cell/ICC/2019-20/05 dated 05th July, 2019.Candidates having knowledge of Marathi will be preferred.

"Qualification, Pay Scales and other requirement are as prescribed by the UGC Notification dated 18th July, 2018, Government of Maharashtra Resolution No. Misc-2018/C.R.56/18/UNI-1, dated 8th March, 2019 and University Circular No. TAAS/(CT)/ICD/2018 – 19/1241, dated 26th March, 2019 and revised from time to time" Remuneration of the above post will be as per University Circular No. TAAS/(CT)/01/2019-2020, dated 02nd April, 2019 & University Circular No. CTAU/23/2021-2022, dated 25th January, 2022.

The Government Resolution & Circular are available on the website: mu.ac.in.

Application with full details should reach the **SECRETARY, Tale Vibhag Shikshan Prasarak Mandal's D. G. Tatkare Arts & Commerce College, Tala, At. Post – Tala, Taluka – Tala, Dist – Raigad- 402111 within 15 days** from the date of publication of this advertisement. **This is University approved advertisement.**

Sd/-
SECRETARY

Adivasi Pragati Mandal Sanchalit

Comrade Godavari Shamrao Parulekar College of Arts, Commerce and Science, Talasari Tal-Talasari Dist-Palghar 401606

APPLICATIONS ARE INVITED FOR THE FOLLOWING **CLOCK HOUR BASIS** POSTS FOR THE ACADEMIC YEAR 2024-25

AIDED

Sr. No.	Cadre	Subject	Total No. of CHB Posts	Total CHB Posts	Post reserve for
1	**Assistant Professor**	Marathi	02	05	OPEN - 02
2	**Assistant Professor**	Political Science	02		OPEN - 02
3	**Assistant Professor**	Commerce / Business Law	01		OPEN - 01

The above posts are open to all, however candidates from any category can apply for the post.

Reservation for women will be as per University Circular No. BCC/16/74/1998 dated 10th March, 1998. 4% reservation shall be for the persons with disability as per University Circular No. Special Cell/ICC/2019-20/05 Dated 05th July 2019.

Candidates having Knowledge of Marathi will be preferred.

"Qualification, Pay Scale and other requirement are as per prescribed by the UGC Notification dated 18th July, 2018, Government of Maharashtra Resolution No. Misc-2018 /C.R.56/18/UNI-1, Dated 8th March 2019 and University Circular No. TAAS/(CT)/ICD / 2018-19/1241, dated 26th March, 2019 and revised from time to time."

Remuneration of the above post will be as per University Circular No. TAAS (CT)/01/2019-2020, dated 2nd April, 2019 & University Circular No. CTAU/23/2021-2022, dated 25th January 2022. The Government Resolution & Circular are available on the **website: mu.ac.in.**

Application with full details should reach the **PRINCIPAL, Adivasi Pragati Mandal Sanchalit, Comrade Godavari Shamrao Parulekar College of Arts, Commerce and Science, Talasari (Patilpada), Tal-Talasari Dist-Palghar 401606 within 15 days** from the date of publication of this advertisement. This is University approved advertisement.

Sd/-
Principal
Com. GSP College of A, C & S, Talasari

Sd/-
Secretary
Adivasi Pragati Mandal, Talasari

Maharana Pratapsinh Shikshan Sanstha's

ANANDIBAI RAORANE ARTS, COMMERCE & SCIENCE COLLEGE

At./Post./Tal. Vaibhavwadi, Dist. Sindhudurg, Pin- 416810

APPLICATIONS ARE INVITED FOR THE FOLLOWING CLOCK HOUR BASIC POSTS FOR THE ACADEMIC YEAR 2024- 2025:

AIDED

Sr. No.	Cadre	Subject	Total No. of CHB Posts	Category
1.	Assistant Professor	Mathematics	04	04 - OPEN
2.	Assistant Professor	Physics	02	02 - OPEN
3.	Assistant Professor	Statistics	04	04 - OPEN
4.	Assistant Professor	Zoology	02	02 - OPEN
5.	Assistant Professor	Botany	02	02 - OPEN
6.	Assistant Professor	Hindi	02	02 - OPEN

The above posts are open to all, however candidates from any category can apply for the posts.

Reservation for women will be as per **University Circular No. BCC/16/74/1998 dated 10th March, 1998. 4% reservation shall be for the persons with disability as per University Circular No. Special Cell/ICC/2019-20/05 dated 05th July, 2019.**

Candidates having knowledge of Marathi will be preferred.

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The Government Resolution & Circular are available on the website: mu.ac.in.

Application with full details should reach the **Principal, Maharana Pratapsinh Shikshan Sanstha's Anandibai Raorane Arts, Commerce & Science College, At. Post. Tal.- Vaibhavwadi, Dist. Sindhudurg, Pin- 416 810 within 15 days** from the date of publication of this advertisement. **This is University approved advertisement**.

Sd/-
PRINCIPAL

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COLLEGE PRINCIPAL AND PROFESSOR

Requisites for the position:

in keeping with Statute SC – 16 of Goa University

- Ph.D. degree
- A Professor/Associate Professor with a total service/experience of at least fifteen years of teaching/research in Universities, Colleges and other institutions of higher education.
- A minimum of 10 research publications in peer reviewed journals as approved by Goa University from time to time or UGC–listed journals out of which at least two should be in Scopus/Web of Science Journal.
- A minimum Research score of 110.
- Knowledge of Konkani is essential.
- Minimum 15 years of residence in Goa

Applications with a detailed resume may please be sent to **principal@gchce.com**

In addition hard copies of the resume, 2 recent passport size photographs, copies of certificates and mark sheets, should be sent in an envelope super scribed with the post applied for, **within 20 days** from the date of this advertisement to:

Goa College of Hospitality and Culinary Education, Taj – Cidade de Goa, Vainguinim Beach, Dona Paula Goa 403 004.

Tel: **0832 2454560** Website: **www.goahospitalitycollege.com**

INSA History of Science Young Associate-2024: Call for Nominations

INSA History of Science Young Associate is instituted by Indian National Science Academy, New Delhi, a professional body of Dept. of Science & Tech., Govt. of India with the aim of recognizing historians of science of extraordinary promise and creativity who have made notable research contributions in areas relating to History of Science in India. This associateship, considered to be the highest recognition of promise, creativity and excellence is given annually to those historians of science who have distinguished themselves by their research work carried out in India or abroad. Only those born on or after **January 1, 1984** are eligible for consideration in the year 2024. The selected INSA HS Young Associate will receive a certificate and fellowship of Rs.10,000/- per month for one year through their host Institute subject to TDS. Candidates may be nominated by (i) Fellows of the Indian National Science Academy, (ii) Vice-chancellor of the Universities, (iii) Head of the Institutes, (iv) Candidate's Departmental Head. **Nomination proforma** may be availed from website www.insaindia.res.in. Last date of Submission: **31st July, 2024.**

इन्सा विज्ञान का इतिहास युवा एसोसिएट -2024: नामांकन के लिए आमंत्रण

इन्सा विज्ञान का इतिहास युवा एसोसिएट की स्थापना भारतीय राष्ट्रीय विज्ञान अकादमी, नई दिल्ली, विज्ञान और प्रौद्योगिकी विभाग, भारत सरकार के एक वृत्तिक निकाय द्वारा असाधारण प्रतिभा और रचनात्मकता वाले विज्ञान के इतिहासकारों जिन्होंने भारत में विज्ञान के इतिहास से संबंधित क्षेत्रों में उल्लेखनीय अनुसंधान योगदान दिया है, को मान्यता देने के उद्देश्य से की गई है। प्रतिभा, रचनात्मकता और उत्कृष्टता की सर्वोच्च मान्यता माना जाने वाला यह एसोसिएटशिप प्रति वर्ष विज्ञान के उन इतिहासकारों को दिया जाता है जिन्होंने भारत या विदेश में किए गए अपने अनुसंधान कार्यों से खुद को प्रतिष्ठित किया है। 1 जनवरी 1984 को या उसके बाद जन्मे लोग ही वर्ष 2024 में विचार के पात्र होंगे। चयनित इन्सा विज्ञान का इतिहास युवा एसोसिएट को उनके मेजबान संस्थान के माध्यम से एक प्रमाण पत्र और एक वर्ष के लिए 10,000 रुपये प्रति माह की फेलोशिप मिलेगी, जो टीडीएस के अधीन होगी। अभ्यर्थियों को (i) भारतीय राष्ट्रीय विज्ञान अकादमी के फेलो, (ii) विश्वविद्यालयों के कुलपति, (iii) संस्थानों के प्रमुख, (iv) उम्मीदवार के विभागाध्यक्ष द्वारा नामित किया जा सकता है। नामांकन प्रपत्र www.insaindia.res.in से डाउनलोड किया जा सकता है। नामांकन की अंतिम तिथि: 31 जुलाई, 2024

GOA COLLEGE OF AGRICULTURE

Affiliated to Goa University
State Agriculture Management and Extension Training Institute (SAMETI)
Ela Farm, Old Goa. Goa - 403402

4/4/SAMETI/GCA/RECRUITMENT/2024-25/ Date: 06/07/2024

APPOINTMENTS

Applications are invited in the prescribed "Application Form" with self-attested/certified true copies of mark sheets from S.S.C. onwards from the eligible candidates for the following posts on a Regular basis for four years B. Sc. (Hons.) Agriculture professional degree program from the academic year 2024-25 onwards. The prescribed **"Application Form"** is available on the college website. The applications should reach the undersigned **within 15 days** from the publication of this advertisement.

Sr. No	Designation of Post	Professor	Associate Professor	Assistant Professor
1.	Assistant Professor in Agronomy	1- UR	0	1- OBC
2.	Assistant Professor in Agricultural Economics and Statistics	0	1- UR	0
3.	Assistant professor in Soil Science and Agricultural Chemistry	0	0	1- EWS
4.	Assistant professor in Agricultural Entomology	0	0	1- UR
5.	Assistant Professor in Plant Pathology	0	1- UR	1- UR
6.	Assistant professor in Agricultural Extension Education	0	0	1- OBC
7.	Assistant professor in Agricultural Engineering	0	0	1- OBC
8.	Farm Manager (Asst. Professor)	0	0	1- ST

For minimum qualification and mandatory requirements, visit college **website (https://goacollegeofagriculture.weebly.com).** All the above posts will be filled as per the recruitment rules of the Government of Goa/Department of Higher Education and the Goa University statute.

Principal
Goa College of Agriculture

Shri Vithal Education & Research Institute's

College of Pharmacy, Pandharpur

P.B. No. 54, Gopalpur- Ranjani Road, Gopalpur, Tal.- Pandharpur- 413304, Dist.-Solapur (Maharashtra).
(Affiliated to Punyashlok Ahilyadevi Holkar Solapur University, Solapur)
NON-MINORITY
UNAIDED

Applications are invited for the Post of PRINCIPAL from the Academic Year 2024-2025

Sr.No.	Designation	Total Vacant Posts
1)	Principal	01

1) The above post is open to all, however candidates from any category can apply for the post.
2) Educational Qualification and other requirements are as prescribed by the PHARMACY COUNCIL OF INDIA NOTIFICATION dated: 11/11/2014.
3) A relaxation of 5% shall be allowed at the Bachelors as well as at the Masters level for the candidates belonging to SC/ST/OBC (Non-Creamy Layer)/ Differently-abled for the purpose of eligibility and assessing to good academic record for direct recruitment.
4) Reserved candidates, who are domiciled out of Maharashtra State, will be treated as Open Category candidates.
5) Reserved candidates should also to send a copy of their application to the Deputy Registrar, Special Cell, Punyashlok Ahilyadevi Holkar Solapur University, Solapur.
6) Application received after the last date will not be considered. The College will n.ot be responsible for postal delay, if any.
7) Reservation for women and disable persons will be as per the Govt. norms.
8) Reserved category candidates shall produce the Caste Validity Certificate as per the directives issued by the State Government vide Circular No. BCC-201/Pra.Kra.1064/2011/16B dated 12-12-2011.
9) Reserved category candidates (except SC/ST) shall produce Non-Creamy Layer Certificate at the time of interview.
10) Applicants who are in service must send their application through proper channel.
11) Applicants are required to account for breaks, if any, in their academic career.
12) Incomplete application will not be entertained.
13) T.A., D.A. will not be paid for attending the interview.
14) Applications with full details should reach to the Secretary, Shri Vithal Education & Research Institute, Pandharpur. P.B.No.54, Gopalpur-Ranjani Road, Gopalpur, Tal.-Pandharpur- 413304, Dist.-Solapur within 30 days from the date of publication of this advertisement. Incomplete applications will not be entertained.
15) This is University approved advertisement.

Place: Pandharpur
Date: 08/07/2024

(Dr. B. P. Ronge)
SECRETARY
Shri Vithal Education & Research Institute, Pandharpur

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