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Theory Abundance: Social Science Research at the Crossroads? Part-I[#]

K Paddayya*

"... Knowledge so conceived is an ocean of alternatives channelled and subdivided by an ocean of standards. It forces our mind to make imaginative choices and thus makes it grow. It makes our mind capable of choosing, imagining, and criticizing"

(Feyerabend 1999a: 184).

In this article, attention is first drawn to the existence of theoretical perspectives galore in anthropology, linguistics, and other social sciences and the disarray that this theory abundance sometimes causes in the minds of workers while making their own choices. A brief note is then provided about the philosopher of science Paul Feyerabend's sustained critique of the scientific method and theoretical monism. Following his advice to adopt a critical and case study-based approach to the history of science, an attempt is made to evaluate the degree of newness or originality of processual and interpretive archaeologies. Considering the simple fact that any aspect of the empirical world is open to varied interpretations, it is concluded that theoretical pluralism is actually to be welcomed rather than shunned and that theoretical choices are dependent on the nature of actual topics chosen for research. Finally, the article examines the relevance of this debate in the context of Indian archaeology.

The two terms revolutions and paradigms which T.S. Kuhn introduced in 1962 in his influential historiographical work *The Structure of Scientific Revolutions* have now become part of common parlance in both natural and social sciences. While it is true that Margaret Masterman (1972) noted as many as twenty-one different senses or connotations in Kuhn's use of paradigm, Kuhn himself preferred to treat paradigms as "universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners" (Kuhn 1970: viii). For our purposes here we may safely substitute the more commonly employed term theory for paradigm. Theories serve as *Leitmotiven* in different branches of knowledge. Using a metaphor to convey their overwhelming influence on the practioners, Feyerabend compared good theories to "an attractive and yielding courtesan who tries to anticipate every wish of her lover" (Feyerabend 1995: 149). Let us first examine the state of theory formation in social sciences.

Theory Abundance in Social Sciences

With their beginnings tracing back to the seventeenth and eighteenth centuries, physical and biological sciences emerged in

[#] *An Article in Two Parts. The next Part will appear in the forthcoming Issue.*

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their full-fledged forms in the following century. Likewise, all major social sciences made their appearance in their mature forms by the middle of the last century. Each discipline evolved its own basic conceptual framework and set of methodological strategies. Soon theoretical trends crept into each discipline. We now notice that each discipline has not one but many varied theoretical perspectives competing for the attention of workers. We shall briefly consider this theoretical pluralism prevailing in the major social sciences.

The position of linguistics in social sciences has sometimes been compared to that of mathematics in physical sciences. Structural linguistics replaced diachronic (philological and comparative linguistic) studies of the nineteenth century. With Saussure's work serving as the basis, it dominated the discipline from the 1930s to the 1950s. With its foundations rooted in empiricist philosophy, this trend laid emphasis on one-to-one relationship between raw data and theory formation. Inductive generalizations were seen as the final outcome and it was conceded that these would vary from language to language. By the mid-1950s structural linguistics created a self-congratulatory mood in American linguistics.

But very soon this rosy picture was breached by Chomskyan revolution. Chomsky rejected the notion of grammar as the list of generalities extracted from the data universe. Rather he treated grammar as a theory of language, thereby rendering linguistics into a science. Grammar is now viewed as a system of axioms or rules which can generate an infinite number of sentences. Thus came into being what is called transformative generative linguistics. Chomsky even hoped to identify a class of basic grammatical processes, i.e. universal grammar, which operate in all languages. These mind-operating processes govern the functioning of language. Chomsky's three books *The Logical Structure of Linguistic Theory* (1955), *Syntactic Structures* (1957) and *Aspects of the Theory of Syntax* (1965) truly ushered in a cognitive revolution in the discipline. Far from remaining as a unitary trend, Chomskyan formal linguistics has undergone transformations of its own since the mid-1970s. These transformations are of two types. Chomsky himself and his associates developed the principles and parameters approach, as represented by the Government Binding theory and Minimalist Program. The second version developed by other workers comprises more than a dozen perspectives which include Lexical–Functional Grammar, Relational Grammar, Generalized Phase Structure Grammar, Head-Driven Phrase Structure Grammar, and Categorical Grammar.

Chomskyan cognitive revolution in linguistics by no means eliminated from the picture the older structural-functional school of thought. On the contrary, this school still not only exists but acts as a fighting rival in the discipline. Here again there are three trends called 'external functionalism', 'integrative functionalism' and 'extreme functionalism', each with its own variety of perspectives. Thus, contemporary linguistics is dominated by two opposing schools of theoretical perspectives, i.e. formal ones which emphasize knowledge of the basic structural aspects of language and functional ones which concentrate on the use or application of that knowledge (for details, see Newmeyer 1980, 1998). The polarity between the two streams seems to have reached a level high enough that calls have been given for "let us talk to each other" (Haspelmath 2000). In fact, as we shall consider later, the picture is vaster and debates in linguistics transcend these two mainstream traditions. There are strong advocates of humanist and sociological perspectives (Newmeyer 1986).

Economics is again a well-developed discipline. Right from ancient times many theories have been put forward as part of general economic thought. These include mercantilist, physiocratic, socialist, historical, and other theories (de Roover *et al.* 1968). Theories of economic growth are equally diverse and range from Marxist theory to technological change models to mathematical theory models (Easterlin 1968). Theory-building in political science again goes back to ancient Greek thought and proliferated in medieval and modern periods. Theories covered theocracy, royalism, nationalism, liberalism, dialectical materialism, communism, and fascism (Sabine 1959). History too has a long history of theory formation (Dray 1964). Commencing with the description of special events and personalities, it passed to the stage of narrative accounts of events and episodes. Various determinist or processual trends built upon the principle of causality came up in the nineteenth century. History writing has been influenced by political, military, psychological, and social factors (Southgate 1996, 2000). We then saw

in the last century rise of deconstruction modes of thought which raise objections about assumptions of the past as a referent and the use of narrative for communicating it.

Psychology is another mature social science with a large theoretical framework and an elaborate methodological apparatus. There are different theoretical perspectives cutting across branches such as comparative psychology, physiological psychology, existential psychology, and applied psychology (Waters *et al*. 1968; Marx and Goodson 1976).

Modern sociology began with systems theory, i.e. viewing society as a system, as the first principal theoretical perspective (for a general survey of various theories, see Abraham 1982). With inputs from the work of Henderson, Cannon, Weiner, and von Bertalanffy, general systems theory found footing in sociology since World War II. Studies of society as a system took the form of mechanistic, organismic, and structural models. Functionalism, with its origins going back to the nineteenth century, became a reigning theoretical trend during the third quarter of the last century. Then came up a set of conflict theories, such as those associated with Marx, Dahrendorf, and Horowitz. Exchange theories trace their origins to the ideas of James Frazer and found their modern proponents in George Homans and Lévi-Strauss. Then came up theories of anomic and alienation such as those put forward by Melvin Seeman and Melvin Kohn to account for breakdowns at personal and societal levels resulting from urbanization and industrialization.

Symbolic interactionism arose as another major theoretical trend in the later part of the last century. The leading idea here was that human interactions are not mechanical or matter-of-fact in nature but are loaded with meanings or symbolic representations. Three schools appeared within this perspective, which are associated Herbert Blumer, Manford Kuhn, and Erving Goffman. To these interpretive approaches, we may add the ones derived from or influenced by Husserl's phenomenological philosophy which focuses attention on ontological issues such as the absolute ground of human knowledge and the identification of essences. The theoretical approaches of Alfred Schutz, Peter Berger, Thomas Luckmann, and Harold Garfinkel's ethnomethodology belong to this category.

The story of anthropology runs more or less similar to that of sociology. It began with simple ideas about man's developmental stages (for general accounts, see Harris 1968; Erickson and Murphy 2003). Banking upon the notices of primitive peoples of other parts of the world made by European explorers of the sixteenth and seventeenth centuries, some of the Enlightenment thinkers began to visualize the trajectory of the human story in terms of the three successive stages of hunting, pastoralism and farming, and civilization. From these informal ideas formal evolutionary perspectives developed in the nineteenth century at the hands of Herbert Spencer, E.B. Tylor, James Frazer, and other workers. Among them, the work of Lewis Morgan is the most elaborate. In *Ancient Society* [1964 (1877)] he postulated the development of human society through the successive stages of savagery (hunters and gatherers), barbarism (plant and animal domestication), and civilization (state-level society), each subdivided into lower, middle and upper stages.

In the early part of the twentieth century, North America, England, and France developed individualistic traditions of anthropological research. North America witnessed the rise of the Boasian school of historical particularism, Kroeber's culture-zone perspective, and psychological anthropology rooted in the works of Ruth Benedict and Margaret Mead. In France, structuralism emerged as the dominant trend under the guidance of Lévi-Strauss. In England, Radcliffe-Brown and Malinowski pioneered functionalist trends. In the later part of the century, anthropological thought experienced fissioning which led to cognitive and symbolic perspectives, cultural materialism, cultural neo-evolutionism, human ethology, sociobiology, feminist anthropology, and transactional. Influences of postmodern thought were also felt through the writings of Michael Foucault, Pierre Bourdieu, and other writers.

Like anthropology and sociology, archaeology too has a long story stretching back to the ancient Latin poet Lucretius's imagination of a distant hunting-gathering stage followed by knowledge of fire, then metals, and, finally, agriculture. Commencing with simple human urges that prevailed in ancient and medieval periods such as respect for ancestors, romanticism, pleasure-seeking, and spirit of adventure, this discipline acquired a true

epistemological dimension with C.J. Thomsen's division of the prehistoric past of northern Europe into Stone, Bronze and Iron Ages in the early part of the nineteenth century. Thomsen's Three Age framework initiated what is called culture-history paradigm, i.e. division of the human past into various successive cultural chronological stages, each with its distinctive cultural features and interactions with neighbouring cultures. By the end of the century, this culture-history approach to archaeological records witnessed much elaboration and several sub-stages were recognized within each one of the three ages. Also, archaeology was introduced into the curriculum of some northern European universities. Then the famous excavations of Heinrich Schliemann, Flinders Petrie, Arthur Evans, and other workers brought to light the various Bronze Age civilizations of West Asia and the Mediterranean zone. The rich nature and large variety of cultural material including structures, burials and other elaborate remains facilitated a new knowledge-seeking perspective, viz. reconstruction of total lifeways of different periods. Against this background, several textbook-like publications about method and theory appeared in the market by the middle of the last century (for general surveys of theoretical perspectives in archaeology, see Daniel 1967; Trigger 1989; Johnson 1999; Jones 2002; Paddayya 2014: 1-49).

In its thought and method, the discipline witnessed a revolutionary development in the form of New Archaeology in the third quarter of the last century. Spearheaded by the American archaeologist Lewis Binford and the Cambridge archaeologist David Clarke, New Archaeology rejected trait-list versions of cultures and treated them as systems or totalities. The aim now shifted from objects *per se* to interrelationships among cultural components and between them and those of other cultures and surrounding environmental systems. These interrelations constitute a cultural process that became synonymous with New Archaeology. Its set of conceptual and methodological strategies included a shift of emphasis from diachronic to synchronic and functional aspects of cultures, adoption of a regional perspective in field studies, employment of middle-range generalizations, and application of the method of hypothesis for tackling problematic issues. Research on the preliterate cultures of North America and Europe benefited in a large way from the employment of processual perspectives. These have also been used in a limited number of cases in Indian prehistory and history.

In the early 1980s, archaeology witnessed a second major revolutionary development in the form of the introduction of interpretive perspectives by Ian Hodder and his colleagues from Cambridge University. Reacting against the hard (functionalist and objectivist) approaches of New Archaeology to it, the archaeological record now began to be viewed by them as a text whose meanings need to be read in terms of human feelings, sentiments, and emotions. This trend commenced with Hodder's ethnographic study of Nuba cattle keepers of East Africa which revealed that material culture items simultaneously serve as symbols in action. In tune with this revised re-conception of the nature of the archaeological record, hermeneutics was introduced as the methodological strategy. Interpretive archaeology emerged as a dominant trend in North European archaeology in the fourth quarter of the last century.

Far from being limited to these two major changes in the discipline, several sub-trends appeared within each during the last half a century. In New Archaeology we have variants such as "explicitly scientific" archaeology, Michael Schiffer's behavioral archaeology, cultural materialism, Marxist archaeology, critical archaeology, evolutionary archaeology, and Annales perspectives. The fission in interpretive archaeology is equally elaborate and we have trends such as Hodder's contextual archaeology, symbolic/semiotic archaeology, hermeneutical archaeology, cognitive archaeology, agency theory, etc. In more recent years, thanks to the inspiration received from phenomenology, a few post-humanist trends have also been introduced, e.g. P-archaeology, speculative realism, new materialism, and object-oriented philosophy. In addition to these epistemological perspectives, trends relating to sociological dimensions of the past have also appeared, e.g. public archaeology, sociopolitics of the past, feminist archaeology, etc.

Since the middle of the last century archaeology has undergone a third major epistemological upheaval. This concerns the increasing use of physical, biological, and earth sciences. Thus we have science-based branches such as geoarchaeology, archaeobotany, archaeochemistry, archaeozoology and biological anthropology. Furthermore, some of these branches have developed within themselves sub-branches. For instance, archaeozoology has di-

visions called archaeomalacology, archaeoichthology, avian archaeozoology, acaro–archaeozoology, archaeoherpetology, and social archaeozoology.

From this sketch of the development of theoretical perspectives in social sciences, one can extract some general trends. First, the diachronic or long-term trends in the development of human society which helped the disciplines to carve out their individual identities gave way in due course to the need for laying bare the synchronic or short-term trends. Secondly, the earlier conceptions of culture and society as mere dry lists of components have been displaced by a holistic or systemic perspective. This in turn facilitated a processual view calling for the recognition of spheres of interaction (multi-directional) among cultural and non-cultural components. Thirdly, the initial empirical trends which studied cultures and societies in purely functional terms soon began to be replaced by interpretive approaches treating human societies as cognitive and symbolic systems. Then came up phenomenological perspectives emphasizing the need for recognizing the very fundamental or essential characteristics of the creations of both man and nature.

This theory's abundance in social science research is so overwhelming that individual workers often find themselves at a crossroads. In other words, they are confronted with theory choice, i.e. which approach or perspective to adopt for initiating work in their respective research schemes. Their confusion is further confounded by the 'anything goes' views about scientific knowledge advocated by some eminent philosophers and historians of science. Kuhn depicted the normal science stage of research as mere mop-up work or puzzle-solving. New theories are neither aimed at nor tolerated. All work is strictly done within the confines of the prevailing paradigm, encouraging neither the putting forth of new ideas nor the acquisition of new forms of data. Scientific research is pervaded by herd mentality. Objectivity and creativity which are the characteristics of scientific knowledge fade away into the background (Kuhn 1970: 23-40).

Feyerabend on Science, Scientific Method, and Philosophy of Science

This 'science is not so scientific' view found its staunchest expression in the writings of Paul Feyerabend who made it his career-long pursuit. Feyerabend was one of the towering figures in the twentieth-century philosophy of science. His two books *Against Method* (1975) and *Farewell to Reason* (1999b), because these raised serious arguments against the monopolistic status of science among sources of knowledge, sent alarm bells among scientific circles across the world. Paradoxically, while occupying a senior faculty position in philosophy of science at the Berkeley campus of the University of California for three decades (1958 to 1990), he sought to cut at the roots of this widely popular branch which seeks to examine the what and how of science. Feyerabend's major research papers in this domain published between 1960 and 1980 have been brought together in a three-volume series titled *Philosophical Papers* [1986a (1981); 1986b (1981) and 1999a]. *Killing Time* (1995) and *Conquest of Abundance* (2001) are two other publications of Feyerabend that came out posthumously. His views about the theory of knowledge are briefly dealt with below.

Feyerabend laments that modern-day practioners of science have raised it to the level of a 'church' or an unrivaled way of achieving knowledge about the world (1999a: 200-211). He argues that contemporary studies of the scientific method totally neglect the place of myths, religious beliefs, and common sense knowledge. These forms of knowledge are firmly rooted in experience and as such have their own validity. Here the question is not what is real and what its not real. Rather, as he says, the issue is one of what occurs in which connection and how. Scientific theories also rig experience in their favour and disguise the role of aesthetic, social and irrational factors. Indeed science has become the myth of today just as myth was the science of yesterday. Feyerabend says that distinction between science and myth is itself a myth and asserts that "Science is just one of the many ideologies that propel society, and it should be treated as such". He also denounces the distinction raised by Karl Popper and others between context of discovery and context of justification. Feyerabend also raises objection to reason and objectivity. He writes that till the early part of the last century, "Lady Reason was a beautiful, helpful, though occasionally somewhat overbearing, goddess of research. Today her philosophical suitors (or should we rather say, pimps?) have turned her into a 'mature', i.e. garrulous but toothless old woman" (Feyerabend 1986b: 25). But Feyerabend clarifies

that his project is not one of banishing science from the domain of knowledge but reforming it.

Feyerabend has an immense interest in the history of ideas and has great respect for pre-Socratic philosophy, the scientific revolution of the early modern period, and also the nineteenth and early twentieth-century scientists such as Mach, Max Planck, Einstein, and Niels Bohr. But he has scant regard for the new branch called philosophy of science; in fact, he calls it a bastard subject (1999a: 127-137). He says that in the works of Kuhn, Lakatos, and others, the philosophy of science is divorced from the actual body of science itself and its practice. He further says that, while logical positivists were able to keep at bay metaphysis from science, their successors sought to induct sterile formal logic into scientific research. He has scant respect for methodological guidelines or rules laid down by philosophers of science for pursuing scientific research. He accords maximum importance to a detailed study of primary sources dealing with the history of science. In this regard, he considers Ernst Mach's critical historical approach to science as very appropriate because it allows suggestions and criticisms from outside including non-scientific circles such as folk theories.

Feyerabend's final goal is one of going beyond Karl Popper's critical rationalism and other attempts and bringing about further refinements in general empiricist thought. He has reservations about both scientific realism and positivism (Feyerabend 1986a: Chapter I). He rejects scientific realism because it carries with it dogmatic elements, e.g. a) the world is independent of our knowledge-seeking activities; b) science is the surest way of knowing about it; it tells us about the nature of things and also gives predictions. Although positivism does admit some elements of subjectivism, Feyerabend is far from enchanted by its core principles of linking the meanings of theories with experience and the instrumental role of theories. As an alternative, he develops his own version of realism and calls it philosophical realism which provides for the influence of theories on our observations. Observations are not merely theory-laden but fully theoretical. Philosophical realism further negates the universality of theories. Feyerabend states that older theories may still be useful in the context of presently accepted theories.

Feyerabend is a staunch advocate of pluralism of both methods and ideas (theories). He says that it is the influence of the philosophy of science in the twentieth century which brought in the notion of theoretical monism. He objects to monism because, as he says, it enforces unenlightened conformism and leads to the deterioration of intellectual capabilities and the power of imagination. Feyerabend cites Maxwell, Helmholz, Mach, and other nineteenth-century scientists who argued against theoretical monism and emphasized the need for taking the help of historical sources. He prefers what he calls democratic relativism and further asserts that theories have neither universality nor any permanent validity. Another aspect of science emphasized by Feyerabend is that society should have a role in framing science policies and science should be oriented in terms of the holistic development of society (1999a: 181-191).

This, in short, is the current state of affairs in theory and method in social science research – theoretical perspectives galore in every branch of social science and nagging doubts about the primacy of scientific knowledge and its method. In a way this scenario was only to be expected considering the ever-expanding scope of various disciplines and the large increase in the number of their practitioners since the middle of the twentieth century, leading to 'you frog…you slimy frog' rivalry and quick efforts to niche-carving in respective disciplines. And it is also a fact that we are living in times of post-truth when simple beliefs and opinions are also accorded a place in academic discourse. Inevitably this state of affairs tends to place ordinary workers in a state of perplexity, directionlessness, and uncertainty. Fortunately, there is some relief. For all his virulent attack on science, its method, and theoretical monism, Feyerabend himself shows the way. First, far from trashing them, he wants to reform rationality and science and bring them down from the 'elitist' status they have been accorded till now to "standards which have the advantage of being simple, commensensical and accepted by all" by freeing them from abstract logical criteria imposed on them by philosophers of science (Feyerabend 1999a: 127). Earlier we noted that in Kuhn's normal science objectivity and rationality rather recede into the background and herd mentality governs theory choice. But he too qualifies his observations and says that there are certain standard criteria for evaluating

theories. These rules or values include accuracy, consistency, scope, simplicity, and fruitfulness (Kuhn 1977: 322).

It should also be pointed out that Feyerabend's views did not go uncontested by other philosophers of science. In fact, there was a prolonged dialogic correspondence on these topics between him and Imre Lakatos who was a professor of logic at the London School of Economics (Motterlini 1999). In this connection, we may also note that nineteenth-century workers were already familiar with the notion of science as an extension of commonsense. T.H. Huxley, for example, called it organized commonsense. In the early part of the last century John Dewey, representing the American school of pragmatism, elaborated on it in his book *Logic: The Theory of Inquiry* (1938). He wrote: "Scientific subject matter and procedures grow out of the direct problems and methods of common sense, of practical uses, and react into the latter in a way that enormously refines, expands and liberates the contents and the agencies at the level of common sense inquiry" (1938: 66). Surprisingly, Dewey finds but just one single casual mention in Feyerabend's writings (1986a: 46).

Secondly, as is clearly implied in Feyerabend's own statement quoted at the beginning of this paper, theoretical pluralism, far from being treated as a menace, facilitates the growth of knowledge and is therefore to be welcomed (see 1999a: 104-111). Here again, we must note that Feyerabend is not the first person to call for the use of multiple ideas or perspectives in scientific studies. This notion was already known and employed in ancient and modern periods. In ancient Jaina thought it is called *Anekantavada* or multiple versions or theories of Reality. This notion was voiced by several nineteenth-century workers in Europe. We have, for instance, J.S. Mill's famous statement in his essay *On Liberty* (1874) which says that even the opinion of the sole dissenter from the rest of humanity on a particular issue needs to be respected because satisfactory answers to this opinion may actually strengthen the majority view. In 1890 T.C. Chamberlain (1965) wrote a full article on this theme titled "The Method of Multiple Working Hypotheses." In the last century, Karl Popper (1963) advocated the method of Conjectures and Refutations which also admits the use of multiple approaches.

We thus note that the use of science in a guarded way along with other avenues and the need for the employment of more than one theoretical perspective in the acquisition of knowledge have already been a part of scientific research. The importance of Feyerabend's effort lies in the large number of case studies he has included in his writings to highlight these two aspects of scientific research. I am particularly attracted by his calls for theoretical pluralism and a critical historical approach to knowledge growth. Ignoring the methodological rules laid down by philosophers of science (see 1999a: 138-180), he gives maximum importance to a detailed study of the primary sources themselves dealing with the history of science. He says that there are episodes in the history of science when theories triumphed by suppressing objections and that some continuities may exist between older and newer theories. Noteworthy too is the scope he provides for the role of non-scientists and folk theories. He thus opts not for foundations of knowledge but for knowledge without foundations (1999a: 50-77).

Antecedents to New Archaeology and Interpretive Archaeology

Feyerabend's call for a critical historical approach inspires us to assess the degree of originality or newness of New Archaeology and Interpretive Archaeology because both claimed, at least initially, that they rose upon the death of perspectives that immediately preceded them – ruins of culture-history and other traditional approaches in the case of New Archaeology and the demise of New Archaeology itself in the case of Interpretive Archcaeology. A closer examination reveals several overlappings and continuities between various perspectives. Some of their core conceptions could be identified in the writings of earlier Anglo-American and Asian workers. As mentioned earlier, Thomsen's Three Age System introduced the logos component into modern archaeology and initiated the culture-history paradigm (for elaborate comments, see Paddayya 1993). His detailed grouping of sites and various kinds of objects obtained from them laid the basis for modern classification. His ordering of the objects into three successive ages of stone, bronze, and iron was a reflection of the concept of progress developed by Enlightenment thinkers. Thomsen also laid the basis for the reconstruction of the lifeways approach by asserting that unwritten sources, collectively considered, "give us a clearer

perception of the religion, the culture, the external life…of our forefathers … and sometimes awakening and fortifying conjectures as to emigrations and connections of nations …" (1848: 25). These two perspectives were much elaborated upon thanks to the various field discoveries that came up in Europe and West Asia in the next hundred years. Binford does give credit to the contribution made to the discipline by these two approaches but observes that due to the lack of well-defined methodological approaches in their application, these tended to render "reading the archaeological record a shallow and suspicious pastime" (Binford 1982: 84). The writings of Childe and others provided the basic outlines of theory and method in the discipline. It is on these strong foundations that New Archaeology was raised in the 1960s.

There is yet another aspect of the Three Age System which already presaged one of the chief claims to the originality of New Archaeology, viz. hypothesis-making and testing (Paddayya 2016: 321-25). This concept of the Three Ages did not come up in a flash but was developed by Thomsen over a period of two decades. Further, he put it up as a tentative proposition and clearly recognized that its acceptance or rejection would be contingent upon future evidence. His own words are worth repeating: "Our collections are… still too recent and facts too few for the drawing of conclusions with the full degree of confidence in the greatest number of cases. The remarks which we now proceed to offer must therefore be viewed in the *light of conjectures, destined to be confirmed or rectified in proportion as more general attention is devoted to the subject*" (emphasis added) (Thomsen 1848: 63-64). The words conjectures and confirmed/rectified used by him truly capture the essence of the method of hypothesis, as practiced in scientific research. The Three Age system belongs to the category of classificatory hypotheses which, as has been pointed out by the philosopher Copi (1978: 492-7), played a seminal role in the initial stages of development of physical, biological, and social sciences (see also Paddayya 1990: 8-12).

One can cite several other instances of hypothesis testing before the emergence of New Archaeology. Schiffer (2016: 122) has drawn attention to some cases from traditional archaeology in the American Southwest. The hypothesis of correlation between ceramic sequences and tree-ring chronology raised by A.E. Douglas and his colleagues in archaeology was confirmed by field studies at the site of Show low Ruin. The hypothesis of Harold Gladwin and his colleagues about the existence of various phases in the pre-Colonial period of Hohokam at Snaketown was confirmed by actual excavations. It is also important to note that Walter Taylor viewed hypothesis raising and testing as an integral part of his famous conjunctive approach to the archaeological record. He writes: "… it is a premise of the conjunctive approach that interpretations are both justified and required when once the empirical grounds have been made explicit. Why has revision been made such a bugbear to archaeologists? ... When these are found to demand modification and change they are altered… Why is it not possible to project hypotheses and then go on toward testing and answering the questions thus raised? Why should every archaeological hypothesis have to stand and be correct for all time?" (Taylor 1983: 156).

Robert Braidwood's Iraq Jarmo project concerning the emergence of a food-producing way of life in West Asia also involved hypothesis testing (Braidwood and Howe 1960). Influenced by the idea that the 'hilly flanks of the Fertile Crescent' were a probable nuclear area containing a constellation of potentially domesticable species of wheat and barley and wild sheep, goats, and cattle, Braidwood proposed, as a "reasonable working hypothesis", that the food-producing way of life emerged in this area from a food-gathering stage (Braidwood 1974: 62; see also 1981). He selected the Iraqi Kurdistan area for testing this proposition. His field studies jointly with scientist colleagues and excavations at Jarmo for three seasons (1948, 1950-51, and 1954-55) indeed led to the recognition of an era of incipient food production dated between 9,000 and 7,000 BCE. Braidwood's pioneering work in turn inspired several other projects in other parts of West Asia and the world. Making light of New Archaeology's claims of their originality in the introduction of this topic in archaeology, Braidwood rues: "… If only I had been prescient enough to say *hypothesis* (sic), I could still march with saints, but at least I did say *test* (sic)" (1974: 62).

Indian archaeology too has some interesting examples of hypothesis use from both colonial and

post-colonial periods. In his third annual discourse to the Asiatic Society of Calcutta in 1786 Sir William Jones boldly proposed that "The Sanskrit language, whatever be its antiquity, is of wonderful structure, more perfect than the Greek, more copious than the Latin, and more exquisitely refined than either, yet bearing to both of them a stronger affinity, both in the roots of verbs and in the form of grammar than could possibly have been produced by accident, …" (Jones 1807: 34-5). We all know that it is this hypothetical proposition which led to the growth of the very elaborate discipline of Indo-European philology. Another example from a colonial scholarship is provided by James Prinsep's efforts to decipher the Brahmi script which opened up a rich source of information for studying Indian history. Proposing that the last two alphabets which are common to most of the one-line pillar inscriptions of Sanchi probably stand respectively for *dā* and *nam* (meaning, …[of somebody's] donation), Prinsep, in his own words, "became possessed of the whole alphabet, which I tested by applying it to the inscription on the Delhi column" (Prinsep 1837: 461). His inference was influenced by the donative nature of inscriptions he had earlier noticed in the Buddhist temples of Myanmar.

We must also make a reference here to another early and bold attempt at hypothesis-making. This concerns Bal Gangadhar Tilak's theory of the Arctic homeland of the Aryans put forward in his book *The Arctic Home in the Vedas* published in 1903. As advised by Max Müller to supplement his philological, mythological, and astronomical data with scientific evidence, he read deeply into the writings dealing with geography, glacial geology, and prehistoric archaeology and put forward the Arctic homeland theory as "an inquiry conducted on strictly scientific lines". He conceded that his theory will be tested in the light of the results of future research by citing the metaphor that "The fineness or darkness of gold is tested on fire" (Paddayya 2022).

In the post-Independence period, we have two good examples of hypothesis raising and testing in the light of detailed field-based regional archaeological studies; both these studies predate New Archaeology. Led by the various narrative accounts given in the epic Mahabharata and also by the identity of place names in the epic with modern places, B.B. Lal undertook a detailed survey of sites in western Uttar Pradesh and the Punjab region and then excavated for two seasons the mound at Hastinapur (capital of Kauravas) in Meerut district. This excavation exposed remains of the Painted Grey Ware culture sandwiched between ochre-coloured pottery levels and those of the early historical period. Lal identified this culture with the Pauravas, Panchalas and other early Aryan groups of northern India mentioned in the epic (Lal 1954-55). He called this correlation a provisional answer but no rival interpretation has been put forward so far, leading him now to say confidently that "the Mahabharata was not a figment of imagination. It did have a basis in historical reality…" (Lal 2011: 56).

Raymond Allchin's work on the Neolithic ashmounds of Southern Deccan indeed involved, as he says, "testing the hypothesis we had formed", i.e. interpretation of what was for a century and half summarily dismissed as mere heaps of burnt materials as cattle pens, where cow-dung accumulations were periodically burnt as part of cattle fertility rites. Allchin employed for this purpose archaeological data obtained from both a regional survey and an excavation at Utnur and supplemented with ethnoarchaeological evidence relating to place names, pastoral practices, and folk elements in the Hindu region. He further claimed that these unique Neolithic sites and cattle fertility traditions associated with them "add a new and peculiarly Indian chapter to the history of human institutions" (Allchin 1963: 178).

We noted earlier New Archaeology's reconception of cultures as systemic wholes and their functional or adaptational roles. Here again, the germs of ideas can be found in the writings of many previous writers from both Europe and North America. In his book *Methods and Aims in Archaeology* published in 1904 - probably the first textbook-like account of the methodology of the discipline, Flinders Petrie was already voicing the adaptational aspect of human lifeways. He called archaeology the science "which shows what man has been doing in all ages and *under all conditions* (emphasis added)…" [1972[1904]: vii]. Later Gordon Childe developed this idea more elaborately in some of his writings. For example, in his essay "Changing Methods and Aims in Prehistory" which he delivered as Presidential Address at the Prehistoric

Society, London, in 1935, he emphasized the need to rise above the level of typological studies and instead called attention to the treatment of cultures as living, functioning organisms and as adjustments to their respective environments (Childe 1935; see also Trigger 1994; Renfrew 1994). New Archaeology's emphasis on the cultural process or webs of relationships among both cultural and environmental components was already foreshadowed by Grahame Clark by a decade. In his Reckitt memorial lecture delivered at the British Academy in London, he presented this idea in the form of a diagram showing various cultural and environmental components with their linkages represented by multidirectional arrows (Clark 1953).

In North America, John Bennett was one of the first persons who realized that in the 1940s American archaeology was already undergoing a transformation from its historical, fact-gathering stage to that of reflection and generalization (Bennett 1943). He considered arrangements and orderings of data and the development of concepts and generalizations about the data to be important hallmarks of this new phase. He noted the replacement of historical considerations of archaeological records by functional or sociological conceptions as another major facet of this transformation. In addition to the use of concepts such as folk society and culture complex and ethnohistorical data, this functional orientation involved interest in social-economic correlations. In 1948 Walter Taylor published his book *A Study of Archaeology* in which he put forward his conjunctive approach which viewed archaeological remains not as dry-as-dust material but as culture-imbued data encoding past human behaviour (1983). To Taylor archaeology was both history and anthropology—history not in the sense of the sequential ordering of events but as a study tasked with the construction of cultural contexts along the trajectory of time and anthropology because it deals with the nature of culture and cultural dynamics. It is no surprise then that he treated New Archaeology as mere "Old Wine in New Skins" (Taylor 1972).

Commenting on the rise of New Archaeology, the senior American archaeologist Paul Martin was so impressed by its novel features that he called it a revolution of the kind envisaged by Kuhn in natural sciences (Martin 1972). He recognized radical departures from traditional approaches in four major domains of the discipline—reconception of the nature of archaeology as a scientific discipline in the place of its historical connotations; replacement of normative conception of culture by its notion as a systemic whole; introduction of the deductive methodology in the place of inductive or simple data gathering procedures; and rising above pure descriptive studies and attempting explanatory accounts and proposing law-like generalizations.

In the same decade, another American archaeologist David Meltzer came up with a somewhat different interpretation of the place of New Archaeology. He denies that it implies any paradigmatic or revolutionary departure and says that it did not bring any change in the basic metaphysics of the discipline. While conceding that some changes were introduced in general archaeological thought, he argues that these are not one of nature but of degree and incremental in nature. To state the view in his own words: "In short, the changes that took place in the discipline were incremental, not revolutionary. In fact, to deal with these changes one must ignore the Kuhn model altogether since that model only addresses changes of a kind. An alternative, for model-minded archaeologists, would be the linear-continuum model of Thompson… Ultimately, there is very little of the New Archaeology that cannot fit on the same linear continuum with the Old Archaeology… There has been no revolution in archaeology" (Meltzer 1974: 654).

What is this linear-continuum model? Thompson defines a linear model as a simple straight-line providing space to seemingly opposite theoretical perspectives which actually "can be shown to be closely related when compared along the gradations of the scale" (Thompson 1972: 34). He places both traditional archaeology and processual archaeology on this linear scale and concludes that the health of the discipline depends on theoretical pluralism.

Meltzer's detailed argument that New Archaeology marks no departure from but actually forms part of Old Archaeology reminds us of the ten-page introduction in the book *Method and Theory in American Archaeology* which Willey and Phillips (1958: 1-7) published five years before Binford's manifesto-giving essay titled "Archaeology as Anthropology" (Binford 1972: 20-32). This short piece already contains the core conceptions of almost all important conceptual changes advocated by New Archaeology. Willey and Phillips maintain that archaeology, while it may supply raw data for other disciplines, is not

only closely allied to anthropology in terms of general theory but actually enriches its scope in spatiotemporal dimensions. In other words, "The archaeologist is in effect a cultural anthropologist". They find close parallels or similarities between archaeology and cultural anthropology at all three levels of scientific study, viz. observation, description and explanation. At the descriptive level, culture-historical studies in archaeology are akin to ethnographic accounts in cultural anthropology. Culture-historical accounts no doubt involve typology, taxonomy, recognition of cultural phases and their functional and environmental contexts, and external relationships in space and time. But all these studies remain at a descriptive level and are geared to getting answers to what questions. At the level of explanation, archaeology seeks *processual interpretation* (sic) which is akin to ethnological accounts of cultural anthropology.

At this level why and how questions are raised and attempts are made to draw generalizations from observations and descriptions which involve causality and transcend time and space. Willey and Phillips recognize a lack of progress in processual interpretation in American archaeology and thus already anticipate New Archaeology's lamentations about traditional archaeology's limitations. In fact, we should note here that the concept of the process has a long tradition in American social science (Kress 1970). New Archaeology's goal of identifying laws of cultural dynamics was clearly anticipated by the statement of Willey and Phillips that "Archaeology, in the service of anthropology, concerns itself necessarily with the nature and position of unique events in space and time but has for its ultimate purpose the discovery of regularities that are in a sense spaceless and timeless" (Willey and Phillips 1958:2).

We shall now consider possible antecedents to post-processual archaeology which has both epistemological and public or sociological dimensions. Here too we need to go back to C.J. Thomsen. Besides his creative epistemological effort in formulating the Three Age system, he was also grappling with or aware of the discipline's public dimension (Paddayya 1993). He expressed happiness that, as compared to the previous two centuries, archaeological sites were receiving better official support and that public interest was also growing about heritage. He took personal interest and led the visitors around the museum galleries every Thursday. He gave special attention to visitors from the countryside because, in his view, "it is by them that we shall have our collections enlarged". It is even reported that he sometimes used to place a golden torc around the neck of a little girl among the visitors in order to enable them to have a feeling of the lifeways of ancient times (Klindt-Jensen 1975: 55).

Flinders Petrie also has something to say in this regard. He already captured the essence of ideational trends by stating that archaeological remains "reveal man's mind, his thoughts, his tastes and his feelings" [1972[1904]: vii]. Petrie was aware too of the vital role of archaeology in public education and wrote that "… it is best fitted to open the mind and to produce that type of wide interests and toleration which is the highest result of education" (*Ibid*.: viii). Walter Taylor too has more elaborate views and offers a mentalistic definition of culture closely recalling that of interpretive archaeology. While granting that archaeology deals with human behaviour, as objectified in the form of ancient remains, he says that true culture is a mental construct comprising unobservable ideas which generate behaviour. These include attitudes, meanings, sentiments, feelings, values, goals, purposes, interests, knowledge, beliefs, relationships, and associations (Taylor 1983: 101). Willey and Phillips also provide scope for retrieving the symbolic dimensions of human behavior from archaeological records. They state that "Archaeology observes primarily behaviour but has considerable opportunity to observe symbolized behaviour in the forms of art, iconography, and (rarely) written languages …" (1958: 4).

We need to bring Gordon Childe also into the picture here. The writings which he completed in the last decade of his life laid emphasis on the central place of man's cognitive faculty in the functioning and development of human society. We already see in these writings the core formulations of cognitive archaeology. Attention is drawn in particular to his book *Society and Knowledge* (Childe 1956). He called the human species "the sole known society of knowers" (*Ibid*.: 126). Childe treated knowledge as a collective entity that man employs for interacting with the outside world. From a motley of stimuli arising from his interaction with the external world, man captures certain regularities or what Childe calls constructional or intellectual tools (*Ibid*.: 69-95) which provide rules for further action. These

intellectual tools are arrived at cooperatively and are used for social action. In *Society and Knowledge* Childe has another interesting chapter titled "Symbols and their Meanings" (1956: 35-43). Here he says that words and characters are symbols and serve as powerful elements in general communication. These statements already presage symbolic archaeology.

Similar calls for recognizing the cognitive dimension of archaeological records came up in North America in the 1970s. Alice and Tom Kehoe reacted against the ecosystem approach that was being advocated by the New Archaeology. They argued that cultural existence has its basis in the cognitive schemata (Kehoe and Kehoe 1973). Robert Hall was another American archaeologist who raised objections to techno-economic determinism and drew attention to the need for understanding the cognitive basis of language, magic, and artistic and literary creations of man (Hall 1977).

India provides clear antecedents to hermeneutics or interpretation which post-processual archaeology explicitly chose as its chief methodological strategy. Known as *tika* (elucidation) and *bhasya* (commentary), hermeneutics has been widely employed in India for pricing out the meanings inherent in ancient writings ranging from Vedic texts to the teachings of medieval saints (Arapura 1986; Sundara Rajan 1991). The writings of Maharashtrian saints Dnyaneshwar and Tukaram, for example, have been interpreted both as a critique of the contemporary social order and as a blueprint for a new order (Sardar 1969).

Even more interesting are the studies devoted to the reconstruction of symbolic meanings of ancient objects and religious monuments (Chandra 1983). E.B. Havell initiated these studies with his exposition of the symbolism of Dhyanibudda image and his emphasis on the need to relate ancient Indian art to the country's religion and thought (1911). Ananda Coomaraswamy, with his vast background knowledge of ancient Indian culture, religion, and philosophy, developed Havell's ideas into a full-fledged interpretive scheme for capturing the symbolic meanings of ancient Indian art and religious monuments (Paddayya 2022: 148-82). While granting the importance of "more mechanical tasks of description" in general art historical studies, Coomaraswamy underscored the need for use of empathy and contextual analysis for arriving at symbolic interpretations. Referring to the Buddha image, he says that " … We are to see, not the likeness made by hands, but its transcendental archetype, we are to take part in a communion… The image is one of Awakened: and for our understanding, who are still asleep. The objective methods of 'science' will not suffice, there can be no understanding without assimilation; to understand is to have been born again" [1986(1938): 147-8]. Likewise, Coomaraswamy interpreted the Hindu temple not merely as an edifice sheltering the image of the god but as the cosmos itself representing in its parts the Indian myth of creation, disintegration, and reintegration. Stella Kramrisch and other writers pursued further this topic of temple symbolism.

Even more famous is Coomaraswamy's interpretation of the Nataraja dance form of Siva as a symbolic expression of matter in motion and the cosmic cycles of creation, maintenance, destruction, and recreation (Coomaraswamy 1985). This interpretation of the Nataraja dance attracted the attention of physicists and astronomers because it tallies well with Quantum theory's proposition of the erratic movement of subatomic particles (Capra 1991: 269-72). In recognition of this interesting correlation or overlapping of interpretations, a six-foot-tall bronze image of Nataraja, presented by the Government of India, was installed at the entrance of the European Centre for Nuclear Research near Geneva (CERN).

By citing the above antecedents (probably many more exist) to processual and interpretive archaeology, I do not mean to say or imply that there is nothing new or original in these streams of thought. It is only being suggested that the germs of many of their underlying ideas and concepts already lay as isolated notions in the writings of many earlier workers from Europe, North America, and Asia. Although pronouncements of the death of older perspectives were sometimes made by the proponents of both processual and interpretive archaeologies in their first flush of enthusiasm, very soon amends were made and the legacy of ideas from the past was recognized. In fact, the phrase New Archaeology was coined by some of the senior disgruntled workers and daubed on the research schemes initiated by Binford and his associates. Binford was content with calling the changes they had initiated simply new perspectives marking "a major point of evolutionary change". He went further and

admitted that "Evolution always builds on what went before…" (1972: 100). Likewise, Hodder recognized the strong foundations supplied by adaptational or functionalist studies of archaeological records to his own interpretive or ideational perspectives (1992: 169-80). He also acknowledged the inspiration provided by the theoretical trends from other social sciences.

In both cases, the newness or originality lay in pooling together ideas that had been loosely spread in time and place and knitting them together to form coherent research perspectives, each with its own set of theoretical and methodological guidelines. In the case of New Archaeology the guidelines included the replacement of the one-site field strategy with a regional approach, the use of sampling and multivariate statistical techniques, and the employment of ethnographic analogies and formation processes perspectives. Many interesting studies of hunting-gathering and food-producing cultures along these new lines have been completed in North America and Europe (e.g. Binford and Binford 1968; Binford 2001; Schiffer 1996; O'Brien, Lyman, and Schiffer 2005; Johnson 2004). And there are calls for the renewal of processual trends (Bell 1994; Kuznar 1997). Similarly, interpretive archaeology's treatment of archaeological records as a text and employment of hermeneutical approaches for recovering mind-expressive components of human behaviour embedded in it has led to some very important studies (e.g. Hodder 1982; 1986).

Thus, in my opinion, the creativity shown by both processual and post-processual trends lies not in introducing into the discipline any totally novel ideas but rather concerns astutely assembling from surrounding disciplines new and useful sets of concepts and methods and shaping these as coherent research paradigms before the slow-moving world of archaeological scholarship. These awakened the workers about the newer knowledge dimensions of the archaeological record. Both processual and post-processual trends thus lowered in their own ways the foundations of archaeology. What Michael Scriven wrote about the legacy of positivism in philosophy is also true in the case of both processual and interpretive trends: "There comes a time in the affairs of science and philosophy when nothing is so valuable as hardheadedness. Positivism brought that hard-headedness to philosophy, and perhaps to some parts of science, at a time when it was needed. Hardheads usually have to be thick heads, and it is no surprise to discover in the cool of later years the issues were not as simple as they then appeared. Nevertheless, revolutions are fought by men who lack finesse, and without them, we would still be in a rather primitive state. We must pay tribute to the revolutionary while avoiding the mistake of deifying his doctrine" (Scriven 1969: 208-9). Processual and interpretive archaeologies richly supplemented rather than supplanted the older perspectives. Whewell was very correct when he wrote nearly two centuries ago: "In the intellectual as in the material world… Nothing which was done earlier was useless or unessential, though it ceases to be conspicuous and primary" [Whewell 1857([1837): 8].

❑

One Step Backward, Two Steps Forward: Lost and Lasting Glory of Gandhism

Hema Raghavan*

While today is justly defined as the age of AI- which is as revolutionary as the other remarkable inventions of the 20th C such as mobile phones and the Internet and which in the next five years will further revolutionize 'the way people work, learn, educate themselves, travel, receive health care' as Bill Gates foresees and which will play a pivotal role in Industries and Business affairs, it will not be far from the shocking truth to define our Age as the Age of Violence, considering the overarching centrality of violence in our lives. This is no exaggeration, no criticism, no defeatism, but a statement of stark reality as we read the news Headlines about "Another shooting in a US school. Three kids' and three adults' life snuffed out, the 89th violent killing in the three months of 2023 in the US alone." It is also truthful though the unpleasant fact that, we open the newspapers every morning with nervous trepidation to read about ghastly crimes in different parts of the world including India. The same nervousness grips us as we surf the news channels that screech and visualize in detail such gory news in the name of media sensationalism. The daily count of deaths in the Russia-Ukraine war sends a chill through our bones. The number of deaths of civilians, or non-armed individuals, in Ukraine is around 8.4 thousand and the number of injured stands at 14,000 since the start of the war 13 months back. Anywhere and everywhere there remains the same story of violence in all parts of the globe. Sanjay Barua mentions the most quoted quote of Prime Minister Modi "This is not an era of war" and says reality does not bear witness to this homily as evidenced in the first twenty years of the 21st C when wars have been fought across Asia, Africa, Latin America and currently in Ukrania which is a part of Western Europe.

India is no exception. Though no war has taken place since the Kargil War of 1999, there has been no dearth of violence in the country through this period. A good deal of violence is targeted at women and that too, belonging to Dalits and Muslims. The appalling details on TV channels of cutting and chopping, post-murder of young women have shaken the moral consciousness of a majority of viewers. Whether India stands first in any field or not, our country may be among the top in the number of rape cases. Statistics reveal that in Delhi alone, India lodged an average of 86 rapes daily and 49 offenses against women per hour in 2021. In the first three months of 2023, there have been 32 shocking sexual assaults. So also communal violence had flared up during Ramanavami celebrations in four Indian states Gujarat, Madhya Pradesh, Jharkhand, and West Bengal in 2022 and there is a repeat this year during a celebration in honor of the one and only *Maryada Purush*, Sri Ram. According to Prof Ahuja, Director of IIT, Kanpur, "New forms of public violence such as vigilantism and lynch mobs seem to be sprouting like ugly cancer across the country."

These sanguinary details make me recall Tennyson's poem *The Charge of the Light Brigade* written nearly one hundred and seventy years back. A tweak, here, a tweak there, and that is all needed to sum up our age of Violence.

Violence to the right, Violence to the left
Violence in front, violence at the back
Violence in words, violence in action
Cowering under the attack of guns and mortars and words
We ride into the jaws of death, body, and soul

What an irony -more so when we consider violence in India- the land of Gandhiji, the personification of peace and righteousness. Gandhiji never uttered an abusive word against the 89 years of rule of the British masters nor against the 500+ years of the Muslim rulers. In many of his writings, he wrote he had all through his life struggled against three evils- (1) the British rule (2) Hindu –Muslim disunity when both belonged to India, and (3) the Untouchables. Similarly, some of his statements are worth recalling in our present-day animosity. In our eagerness to sport our religious nationalism on our sleeves, we pour vitriol on all those rulers who are

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seen as destroyers of India and our Hindu faith and try to purge all the vestiges of colonialism. Almost in atavistic fury, a majority of people have been brainwashed into accepting decolonization as an important step to recover our past glory. This is totally unlike Gandhi's attitude towards the British.

Gandhiji said, "I am not anti-English; I am not anti-British; I am not anti-any Government; but I am only anti-untruth, anti-humbug, and anti-injustice" even as he fought for independent India. "My love of the British is equal to that of my own people. I claim no merit for it, for I have equal love for all mankind without exception. It demands no reciprocity. I own no enemy on earth. That is my creed." He was deeply appreciative of the gifts of British rule which he internalized in his behavior. He said: "No one will accuse me of any anti-English tendency. Indeed, I pride myself on my discrimination. I have thankfully copied many things from them. Punctuality, reticence, public hygiene, independent thinking, and exercise of judgment, and several other things I owe to my association with them. " The last two mentioned *–independent thinking and exercise of judgment* – is the need of the hour as we are being denied the luxury of time to think and act in the age of powerful Social media where messages come thick and fast and assail our mind. Gandhiji had the good fortune to have escaped the bombardment of Twitter and Instagram, Facebook, and Youtube. As a result, Gandhiji places premier value on universal human nature that remains within each one of us. despite the genetic variation.

"My Faith in human nature is irrepressible and, even under the circumstances of a most adverse character I have found Englishmen amenable to reason and persuasion, and as they always wish to appear to be just even when they are in reality unjust, it is easier to shame them than others into doing the right thing." "My nationalism is not so narrow that I should not feel for ….[Englishmen's] distress or gloat over it. I do not want my country's happiness at the sacrifice of another country's happiness."

But today our refusal to play in Pakistan for the Asian Cup 2023 in the light of Pakistan's deadly attack in Uri and Pulwama is a pointer to fear and mistrust between the two nations that goes back to the days of the inhuman saga of partition. Both nations prefer to live in the past and not live in the present and nurse bitter animosity and hatred towards each other. Both have self-imposed mental incarceration to let go of bygones. Neither has a word of praise for the other's success in any field- be it science or technology, literature, arts or sports and goes to the extent of abusing anyone as anti-national if s/he praises the Pakistanis. It is one thing to feel pride in our victories, but certainly unbecoming of our national character to deny others praise if and when they deserve it. Gandhi's words about the British who were our rulers, the ruthless colonial masters are a sharp contrast to modern-day chauvinistic and ultra-nationalistic attitudes to each other.

We have moved far away from the Gandhian way of humanizing relationships or what in modern idiom we refer to as cultivating humanity. Gandhiji, himself, a devout Hindu had a catholic large heartedness towards other religions in particular Christianity and Islam.

The second evil he was against was the Hindu-Muslim disunity as he saw both religious groups as belonging to India. He fought for unity between the two religions and stood for religious pluralism which is the cornerstone of Hinduism and propagated by Swami Vivekananda. He lived and died for the principles of acceptance, accommodation, and adjustment to promote unity among disparate and diverse groups with their individual practice of tradition, beliefs, and customs sanctioned by and unique to their religion. For him, Ram and Rahim were the best exemplars of religious unity. Gandhi offered a congregational public prayer that was inter-religious in character in which all could join. Jayant Deb in an article on Gandhiji writes " …Gandhiji used it to inculcate bravery, which comes from a living faith in God, upon the victims of violence and to teach the lessons of tolerance, just dealing and brotherhood among the victims. 'Congregational prayer,"' said Gandhi, 'is a means for establishing essential human unity through common worship'. "

In another statement, relevant to our times, "My Ram is also my Rahim….Even today a thousand temples may be reduced to bits, I would not touch a single mosque and expect thus to prove the superiority of my faith to the so-called faith of fanatics.... Hindus will not defend their religion or their temples by seeking to destroy mosques, and thus proving themselves as fanatical as the fanatics who have been desecrating temples."

India has the potential today to emerge as a leading nation to take the role of "Lead, kindly light., amidst the encircling gloom", the famous hymn composed by Cardinal Newman. Newman had titled it "the Pillar of the Cloud". The first stanza is worth looking at:

Lead, Kindly Light, amidst the encircling gloom,
Lead Thou me on!
The night is dark, and I am far from home,
Lead Thou me on!
Keep Thou my feet; I do not ask to see
The distant scene; was one step enough for me.

Are we in a position to provide one step enough to free the world of mindless violence? Yes, it is plausible and possible. The two words may seem semantically a copy of each other, but with a difference. ' Plausible' refers to something that is reasonable or believable that a thing might happen while 'Possible' refers to something that can happen. The idea of India taking the lead role to steer the world out of the deep morass of violence is plausible. As Gandhi had been our leading light with his twin *mantras* of *satyagraha* and non-violence, the plausibility of India donning the mantle of peace and non-violence is not far-fetched. Gandhiji's example of gaining freedom without violence gives us the confidence to build hope amidst the encirclement of bigotry, intolerance, dogmatism, and prejudice towards those who have different beliefs or a different way of life. The possibility of a violence-free world will become a reality if we understand and propagate Gandhiji's Biblical quote "An eye for an eye makes the world go blind."

A life extinguished is an irretrievable finality- what the children's song about Humpty Dumpty says. All the King's horses and all the King's men cannot put Humpty-Dumpty together again after their fall. Similarly, all our tears and lamentations, our fury and vengeance cannot bring back those whose death is the cause of our agony. We tend to forget that every killing, every death, reminds us of our own mortality. We come into the world at a particular moment- not of our choice. We exit from the world at a particular moment-again, not of our choice. The interim period between the womb and tomb is what we define as life. When we are not arbiters of our own entry into and exit from this world, why should we be the arbiters of the entry and exit of our fellow beings? The wisdom of Shri Krishna "Ahimsa Paramo Dharma"-Non-violence is the ultimate duty of every individual born on planet Earth. Ahimsa/non-violence is abstinence from inflicting not just physical but also mental violence on others. Modern technology's invention of Social media and Twitter has enabled human beings all over the world to spread hatred and violence in place of love and gentleness. The nationalistic jingo has drowned all the sane voices of world citizenship. Shiv Viswanathan, the eminent Sociologist says "If you want to enter the art of darkness today, welcome to nationalism.

We don't have Gandhi. I don't foresee the advent of Gandhi in the near future. Waiting for the Mahatma is waiting for Godot. In this context, let us all approximate to be like Gandhi whose famous quote is "If you want to change the world, start with yourself" This has been re-echoed by C. Joybell C: *"Don't try to change the world; just change yourself*.

Let us forget our newly minted narrow, parochial idea of Indianness. Kishalaya Bhattacharjee *in his new book Where the Madness Lies: Citizen Accounts of Identity and Nationalism* says, "One must rethink the dominant imaginations of 'Indianness' and bring back a sense of plurality to the idea of being Indian". The eminent Science fiction writer Gautam Bhatia has expanded the idea of citizenship into *jus soli* and *jus sanguinis*. *'Jus soli'* confers citizenship based on place of birth, *'Jus sanguinis'* recognises blood ties. We have to realize that each one of us has citizenship of the place we are born and the bloodties that come with it. But overarching the twin principles of *Jus soli* and *jus sanguines* is the indelible fact that our place of birth is Planet Earth and our blood ties are with all fellow beings. The color of our blood is uniformly red, irrespective of white or brown or yellow, or black skin.

We are lucky to be citizens of India- the country that has given birth to three Citizens of the World- Swami Vivekananda, Rabindranath Tagore, and Mahatma Gandhi. Gandhiji's breadth and depth of wisdom along with those of Swamiji and Tagore shall be the guiding light that we can and must radiate to the entire world. Let us be the inheritors, practitioners, and exemplifiers of human bondage founded upon the lasting glory of our Tirumurti. For every backward step we have been taking in the name of Indianness, let us take two steps forward to show our Humanness and legitimately claim our citizenship of the world.❑

Implementation of Cluster College System in Hyderabad

Kandi Kamala*

Telangana is one of the states in India perform-ing moderately in educational development. The state of Telangana had overcome its burden of history in terms of educational backwardness that was witnessed in the region during the Nizam regime in the pre-independence period and neglected state of all levels of education for a long period in the united Andhra Pradesh. However, the progress in school education during the last three decades following the District Primary Education Programme (DPEP) and Sarva Shiksha Abhiyan (SSA) is remarkable. Aligning with that subsequently higher education in the state also made remarkable progress during the last two decades. The Gross Enrolment Ratio (GER) of higher education in the state at 36% in 2019-20 is 10 percentage points higher than the national average. Such a performance of the state is facilitated by the availability of higher education institutions especially the number of colleges. Telangana stands second highest among Indian states in terms of Higher Education Institutions (HEIs) available per lakh college-age (18-23 years) population in the state. However, unless certain intricate issues and challenges persisting in the state higher education system are resolved the impending progress may be jeopardised. The size of institutions in terms of enrolment is found to be very small; the average enrolment per college is around 526 which is one of the lowest among Indian states. The very high number of colleges in the affiliating system and without National Assessment and Accreditation Council (NAAC) accreditation is resulting in a burden on the affiliating universities in regulating them and complying with delivering quality education. In this regard, especially in the context of National Education Policy---2020 (NEP 2020), the state higher education system needs to be reconfigured by overhauling the existing structure.

The new system, on a pilot project, will be introduced in Osmania University College for Women, Koti, Nizam College, Government City College, Government Degree College for Women, Begumpet, Raja Bahadur Venkat Rama Reddy Women's College, St. Ann's College for Women, St. Francis College for Women, Bhavan's Degree College, Sainikpuri, and Loyola Academy.

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Cluster System

It is the grouping of two or more degree colleges that are geographically closer without displacing their advantage of resources including human, physical, and financial. The idea is to offer quality education besides access and more career opportunities to students for pursuing their higher education. This new system will be executed between the institutions through an agreement

How do Students Benefit?

The cluster system, which will be multidisciplinary in approach, allows students to opt for courses that are not being offered in their college but are available in other institutions within the cluster. This will help in the mobility of students from one institution to another institution. For example, a BA History, Economics, and Political Science student from one institution can pursue a Psychology or Mass Communication course being offered by another institution or vice-versa. However, students will be allowed to choose only one course while the core ones remain the same. Also, on completion of the course, requisite credits will be transferred to the students. Initially, this will be introduced for second-year degree students.

Exchange of Faculty Members

The system will also facilitate the exchange of faculty members between the degree colleges. This means that a Physical Science faculty of one institution can teach in another institution.

Sharing of Resources

By clustering the colleges, the institutions can pool and share their resources like the library, infrastructure, best practices, and other human resources. For example, students of an institution can get access to a rich collection of books and laboratory facilities available in another institution.

Which Colleges Will be Under the Cluster System?

In a pilot project, nine autonomous degree colleges in the city will be in this new system. The colleges include Osmania University College for

Women, Koti, Nizam College, Government City College, Government Degree College for Women, Begumpet, Raja Bahadur Venkat Rama Reddy Women's College, St. Ann's College for Women, St. Francis College for Women, Bhavan's Degree College, Sainikpuri, and Loyola Academy. The colleges were asked to study and prepare a report within 15 days on how courses and resources could be shared besides preparing a timetable for offering courses between the institutions.

Monitoring

As all the colleges are under Osmania University, the university will be monitoring the implementation of the cluster system while the Telangana State Council of Higher Education will guide the colleges. Single-stream institutions and multidisciplinary institutions with poor enrolment, due to a lack of employment-oriented innovative multidisciplinary courses and a lack of financial resources to maintain and manage the institutions can improve enrolment by becoming members of clusters and by offering multidisciplinary programmes. The clustering of colleges may help in securing good grades in NAAC accreditation. Transforming all HEIs into large multidisciplinary institutions, the existing colleges operating on the same campus or in close proximity can form a cluster. This will ensure that colleges with poor enrolment and fewer resources can offer multidisciplinary programmes and can have access better facilities for the benefit of all. The cluster colleges shall aim at making the courses more dynamic through collaboration with other universities, prestigious government institutions and reputed industrial houses and also avail of the courses offered in the online and ODL mode. In the case of private colleges forming a cluster, the trust, society, or company which runs the college must be a charitable and not-for-profit body.

Table-1: Colleges in Telangana by Discipline and Management, 2019

		Management			
Disciple	**Central Govt**	**State Govt**	**Pvt Aided**	**Pvt. Unaided**	**Total**
1	2	3	4	5	6
General	1	179	60	851	1091
Arts and/or Science	1	5	3	8	17
Commerce	0	1	3	18	22
Management	0	1	3	87	91
Hotel & Tourism Management	0	0	1	29	30
Education/Teacher Education	1	6	10	204	221
Law	0	0	1	17	18
Architecture	0	0	1	8	9
Computer Application	0	1	1	10	12
Engineering &Technology	0	0	7	187	194
Medical-Allopathy	1	9	2	17	29
Medical-Ayurveda / Homeo	0	4	0	4	8
Medical-Dental	0	1	2	9	12
Medical-Others	1	3	0	9	13
Medical-Nursing	0	7	6	71	84
Paramedical	1	1	1	10	13
Medical-Pharmacy	0	1	3	105	109
Medical-Physiotherapy	0	0	4	17	21
Oriental Learning	0	0	8	1	9
Sports/Yoga/Physical Education	0	1	0	10	11
Others	0	1	1	3	5
Total	***6***	***221***	***117***	***1675***	***2019***

Note*: Total number of colleges are as reported in AISHE.*
Source*: College Directory, AISHE, Ministry of Education, Govt. of India.*

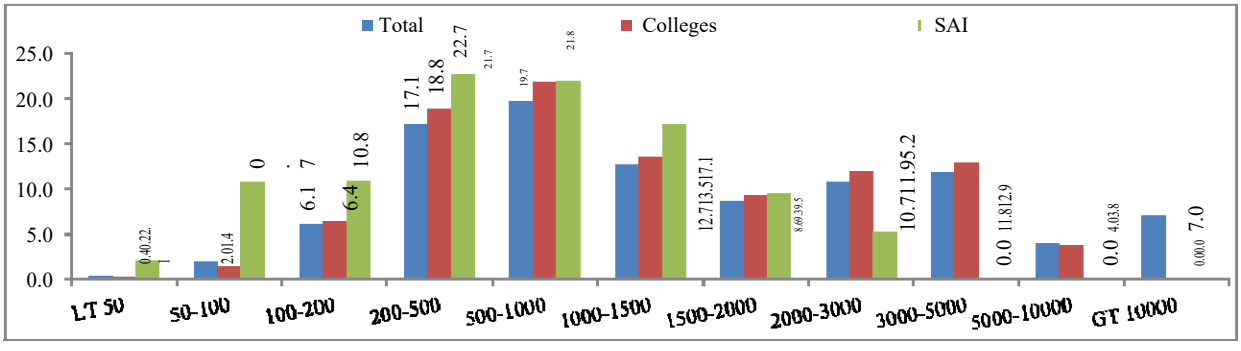
Structure of Higher Education Institutions in Telangana

There are 24 universities and 2041 colleges along with 541 standalone institutions listed in the state of Telangana active for the year 2019-20, according to the latest information from the Ministry of Education, Government of India source (AISHE) (Table-1). Of the total number of colleges with general and various specializations (general/ degree colleges, engineering, medical/nursing, etc.,), 221 colleges are under the state government management. Of the 221 total colleges managed by the state government departments, 123 are degree colleges offering largely general types of courses.

A large number of standalone professional colleges functioning with discipline-specific educational courses and programmes (engineering, management, medical, nursing, law, education, etc.,) is one of the issues with the higher education institutions in the state (see Table-1). Of the total number of colleges, almost half of them are standalone professional colleges with discipline-specific programmes. To be specific they are not multidisciplinary institutions.

Another structural anomaly of the higher education system in the state is the small size of HEIs in terms of enrolment (Table-1 and Figure-1). More than two-thirds of the HEIs in the state have an enrolment size of less than 500, and nearly 87 per cent of institutions have an enrolment of less than 1000 (Table-2). Less than two per cent of total HEIs in the state have enrolment above 3000, less than five per cent of institutions have enrolment more than 2000. Due to the small size of enrolment witnessed in the majority of HEIs in the state, the

Figure-1: Share (%) of Enrolment by Size of Enrolment in Telangana, 2018-19



Source: AISHE 2018-19, Institutional-Level data.

Table-2: HEIs in Telangana by their Size of Enrolment, 2018-19

Enrolment		Number of HEIs			Percentage			
Size of HEIs	Total	Universities	Colleges	SAIs	Total	Universities	Colleges	SAIs
1	2	3	4	5	6	7	8	9
Zero	23	0	18	5	0.9	0.0	0.9	1.2
< 50	145	0	80	65	6.0	0.0	4.0	15.2
50-100	332	0	188	144	13.6	0.0	9.5	33.7
100-200	522	0	440	82	21.4	0.0	22.2	19.2
200-500	708	0	634	74	29.1	0.0	31.9	17.3
500-1000	383	4	344	35	15.7	17.4	17.3	8.2
1000-1500	142	4	124	14	5.8	17.4	6.2	3.3
1500-2000	67	2	59	6	2.8	8.7	3.0	1.4
2000-3000	58	3	53	2	2.4	13.0	2.7	0.5
3000-5000	42	4	38	0	1.7	17.4	1.9	0.0
5000-10000	9	2	7	0	0.4	8.7	0.4	0.0
> 10000	4	4	0	0	0.2	17.4	0.0	0.0

***Note**: SAIs – Stand Alone Institutions.*

***Source**: AISHE 2018-19, Institutional-Level data.*

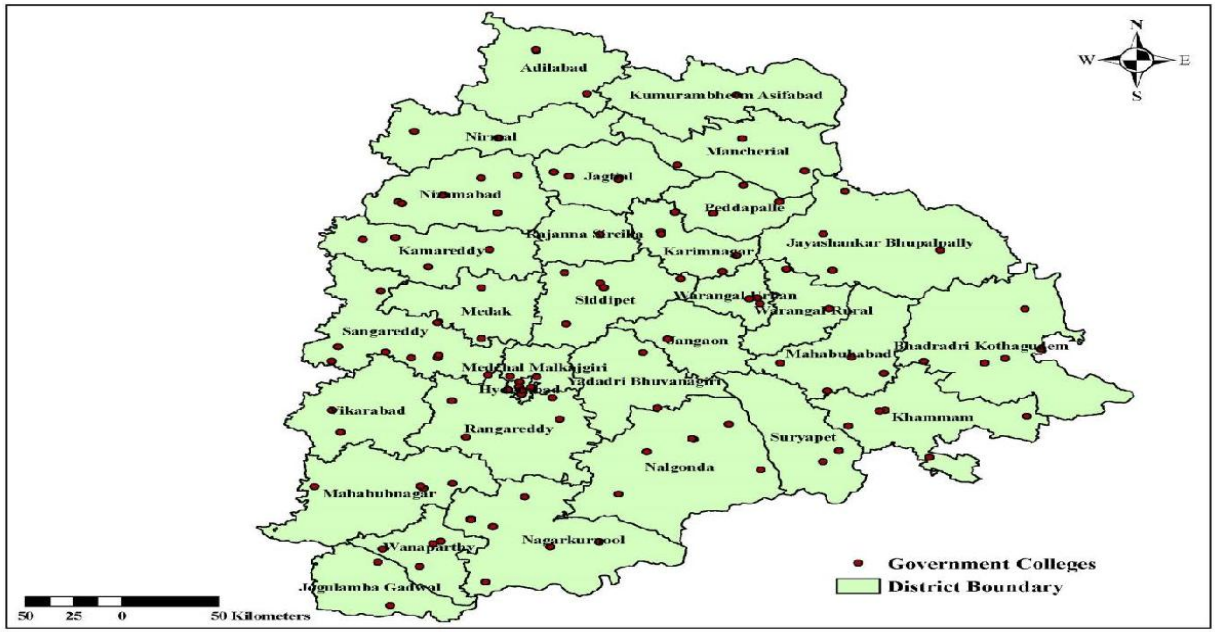
average enrolment per college (525) in the state is one of the lowest in the country (Figure-2).

Institutions with less than 500 enrolments account for one-quarter of the total enrolment of HEIs in the state (Figure-1). Those institutions having an enrolment of less than 1000, account for 45% of the total enrolment. The institutions with an enrolment of more than 2000 account for one-third of total enrolment. The contribution of large-size HEIs (enrolment > 2000) to total enrolment (33.5%) in the state is seven times higher than their percentage in a total number of institutions (4.6%). The contribution of small-size HEIs (enrolment < 500) to total enrolment educational demands of a few and, a very few HEIs in the state are serving the educational demands of a larger section.

Some of the districts like Hyderabad may require the formation of three to four clusters, and some other districts like Rangareddy, Sangareddy, Siddipet, Nagarkurnool and Nizamabad may have two clusters (Table-). Colleges in many other districts would have one district-level cluster but only one or two colleges existed in a few other districts like Asifabad, Narayanpet, Yadadri, and Jangaon may have to be part of clusters in the neighboring districts. After the reorganisation of the district, their number has increased to 33. Some of the erstwhile districts are reorganised into multiple new districts. Here, the formation of clusters for the smaller districts and those with a very few colleges may be anchored broadly with the undivided districts.

- All facilities under the colleges, such as housekeeping, security services, library, sports, laboratories, parking, ground, and classes will come under the umbrella of a common pool, which will again benefit all students on the campus.
- Facilities in individual colleges can be put to optimum utilization for the overall benefit of students in the cluster. This will also ensure that the expenditure on separate resources is curtailed and a common pool can benefit all the students.
- Through the clusters, restructured degree programmes with skill courses, internships, and community service, among others, will become easier and will increase the students' job-oriented skills.
- The existing colleges will continue to function as per prevailing norms.
- There will be no change in the recruitment, appointment, allowances, service rules and pension schemes of the teaching and non-teaching staff of the colleges.

Map-1: GIS-Mapping of Government Degree Colleges across Districts in Telangana



Notes: *Based on the coordinates (latitude and longitude) of the college location.*
Source: *RSEPPG Research Team.*

- The State governments will continue to provide the same funds to government- aided colleges as they had been doing before the cluster formation.

For the smooth functioning of cluster colleges, there shall be a Board of Directors as per the following composition:

For the Cluster of Government Colleges

1 Highly reputed person from government, academic, industry or public Chairperson administration. (nominated by the State government)

2 Commissioner or director of HE or his or her nominee Director

3 Vice-Chancellor of the affiliating university or nominee Director

4 Principals from the cluster of colleges (Two) Directors

5 Academicians as external experts, as nominated by the Board (Two) Directors

6 One expert from the Industry, as nominated by the Board Director

Table-5: District-wise Public HEIs in Telangana State

S No	District	GDCs	WDCs	Teachers Education	Medical & Nursing	Others	Total
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	Adilabad	3	3	1	2	1	9
2	Bhadradri Kothagudem	5	4	1			10
3	Hyderabad	11	1	1	9	2	24
4	Jagtial	4	1			1	6
5	Jangaon	1	1			1	3
6	Jayashankar Bhupalpally	2	2			1	3
7	Jogulamba Gadwal	3	-				3
8	Kamareddy	4	1				6
9	Karimnagar	5	2			1	7
10	Khammam	5	2				8
11	Kumaram Bheem Asifabad	1	1				2
12	Mahabubabad	4	2				7
13	Mahabubnagar	3	2	1	1		9
14	Mancherial	4	-				5
15	Medak	3	2				6
16	Medchal	2	-		1		10
17	Mulugu	2	-			1	4
18	Nagarkurnool	7	3				9
19	Nalgonda	6	2	1	2		11
20	Narayanpet	1	-				1
21	Nirmal	2	1			1	4
22	Nizamabad	7	4		1		11
23	Peddapally	3	-				4
24	Rajanna Sircilla	2	2		1		5
25	Rangareddy	5	6		3		9
26	Sangareddy	7	2		1		8
27	Siddipet	7	2		1		10
28	Suryapet	2	1		1		4
29	Vikarabad	2	1				3
30	Wanaparthy	4	1				5
31	Warangal Rural	3	1		2	2	3
32	Warangal Urban	3	2	1	1		8
33	Yadadhri Bhongir	2	1				3
Total		**125**	**54**	**6**	**26**	**13**	**221**

Notes*: 1. HEIs- Higher Education Institutions (Colleges; GDCs – Government Degrees Colleges; WDC – Social/Tribal/BC/Minority Welfare Residential Degrees Colleges; 2. After reconciliation of the two lists of colleges namely: one, Colleges Directory of AISHE (2019).*

7 One principal from the cluster of colleges, as nominated by the government Director and Head of the Cluster college.

8. The Board of Directors shall be reconstituted every three years.

For the Cluster of Private Colleges

1 One representative from the management Chairperson

2 Highly reputed persons from government, academic, industry or Director public administration (nominated by the management)

3 Three representatives from the management Director

4 Nominee of the State Government Director

5 Vice-Chancellor of the affiliating university or nominee Director

6 Principals from the cluster of colleges (Two) Director

7 Academicians as external experts, as nominated by the Board (Two) Director

8 One expert from the industry, as nominated by the Board Director

9 One principal from the cluster of colleges, as nominated by the government Director and Head of the Cluster college

The Board of Directors shall be reconstituted every three years. Composition of the Academic Council:

1. The Director nominated at no. 7 (Govt. Colleges) and 9 (Pvt. Colleges) above will be the Chairperson

2. Principals of all the colleges in the cluster

3. Heads of departments - 5

4. Senior faculty members – 3 (one to be nominated as Member Secretary by the Director and Head of Cluster College)

5. Not less than four experts and/or academicians from outside the cluster of colleges representing such areas as Industry, Commerce, Law, Education, Medicine, Engineering, Sciences as nominated by the Board of Directors.

Composition of the Finance Committee

1. The Director nominated at no. 7 (Govt. Colleges) and 9 (Pvt. Colleges) above will be the Chairperson

2. Nominee of the Board of Directors

3. Finance officer of the affiliating university

4. The senior-most teacher of the college (nominated by the Director).

The Board of Directors provides overall direction and coordination of the cluster of colleges. The Academic Council works closely with the departments to develop new programmes and a research agenda and review the progress of research.

a) Approval Process

The norms and standards set by the concerned regulatory bodies as applicable are: the duration of the programme, intake, eligibility, admission procedure, fees, curricula and programme implementation; assessment and evaluation; staff and faculty, qualification, infrastructural facilities, and instructional facilities.

Proposals by institutions to offer the multidisciplinary programme in a cluster mode are to be approved by the statutory bodies of a university in accordance with the regulations and/or guidelines set by the regulatory bodies concerned.

Consolidation of the Cluster of Colleges

The member colleges in a cluster will continue to function as affiliated colleges under the university in the initial phase with the Board of Directors, Academic Council, Finance Committee and Curriculum Development Committee governing the academic, financial and administrative matters. During this phase, the member colleges may share their resources to offer multidisciplinary programmes and guide student research projects. After the initial years, the affiliating university may affiliate the cluster of colleges as a single unit. During this transformation phase, the cluster may pass through graded autonomy before developing into an autonomous degree-granting cluster of college. With appropriate accreditations, autonomous degree-granting colleges can further evolve into RUs or TUs university, if they so aspire.

b) Operational Requirements

The institution shall have to enter into a written MoU with its partner institution(s) for collaboration. The MoU must categorically

include the purposes and related provisions of collaboration, the nature, and extent of the relationship among partnering institutions, and the modalities for the functioning of the cluster.

- To avoid scheduling clashes, the timetable must be set in consultation with partner institutions in a manner that students associated with different programmes can easily register for courses without having to deal with any timetable clashes for the semesters they are attending.
- An action plan is needed to upgrade academic facilities and infrastructures, including technology-enabled and assisted learning ecosystem, in each identified HEI, which will include: video-based classes, infrastructure for blended and online learning modes; other academic infrastructure such as library and laboratories; infrastructure for the differently-abled students; facilities and infrastructure for faculty; facilities and infrastructure for promoting sports and wellness and the arts.
- The information related to collaborative programmes to be disclosed in the mandatory public disclosure and it has to be part of the Institutional Development Plan (IDP) of the collaborating institutions.
- The academic requirements and other details of the programme(s) of study offered under the collaborative arrangements shall be made public by displaying prominently on the collaborating institutions' websites before such programmes are scheduled to commence.
- Curriculum Development Committee needs to be constituted with its members having a blend of experience in the industry, academia, and professional associations, to revise and review curricula within the broad framework for course components as suggested by the UGC and the concerned Statutory Councils.
- The course tuition fee charged to the students should only pertain to the courses taught by the HEI.

Merger of HEIs

a) Merger of institutions under the same management Institutions functioning under the same management may merge to put the academic and physical resources to optimal use and to offer multidisciplinary education. The managing trust or society of the institutions should submit an undertaking to the effect that the institutions under its management will merge in accordance with the rules of the State government, affiliating university, and/or the regulatory body.

b) Merger of Institutions Run by Different Management

A private institution desirous of merging with a single stream institution / multidisciplinary institution of another registered society or trust, may apply, with the approval of the affiliating university, to the society or trust of the institution to be merged with and become a part of it as per the procedure of the Societies Registration Act or Trust Act, as the case may be.

c) Adding New Departments

The Policy on 'Holistic and Multidisciplinary Education' underlines pulling of courses and resources from a variety of disciplines and providing flexibility to students to choose courses and pathways such that holistic individual development takes place in intellectual, aesthetic, social, physical, emotional, and moral dimensions and that 21st-century skills/ competencies (including social and life skills) of critical thinking, problem-solving, communication, leadership, teamwork, mastery of curricula across fields, increase in social and moral awareness and creativity and innovation are fully developed and put to practice. The teaching-learning has to be linked to life, community, and the world of work, including the environment across all disciplines/ fields of study, including STEM education.The NEP 2020 visualizes the establishment of one Education Department in colleges/ universities/ HEIs to contribute to multidisciplinary and holistic education and to contribute to research and development in these areas. Section 15 of NEP 2020 underlines three purposes:

Guidelines for Transforming Higher Education Institutions (HEIs) into Multidisciplinary Institutions:

i. to conduct cutting-edge research in various aspects of education,

ii. to support the actualization of all teacher education in multidisciplinary institutions and

iii. to contribute to multidisciplinary and holistic higher education across disciplines.

Section 15.6 of NEP 2020 talks about Education Departments developing a range of experts in education (including subject areas); and Section 15.9 stipulates that all PhD scholars across disciplines shall have to take up courses from Education Departments relating to curriculum design, pedagogy, education areas, communication, and writing so that they develop competencies relating to these areas too, as also that they may take up teaching as a career in the future.

The 'Education Departments' (or Departments of Education/ Schools of Education) are visualized as instruments toward:

i. contributing to multidisciplinary across disciplines of study in a HEI;

ii. benefitting from the multidiscipline environment of the HEI for its own programmes; and

iii. contributing to multidisciplinary teaching-learning (curriculum, pedagogy, technology-enabled blended learning, assessment, and evaluation, etc.) as visualized in the NEP 2020 and developing specialized experts in these areas.

At present, there are three structural arrangements and areas of work that Education Departments in universities and/ or colleges serve:

i. One, the offer of 'Education' programmes (MA Education and PhD) as a broad discipline and research-oriented programme, with a wide coverage of educational planning and organisation in the country and to address education as a distinct (but multidisciplinary) area of study.

ii. Two, the offer of teacher education programmes (M.Ed., B.Ed., Diploma in Elementary Education, Art Education, Physical Education, Pre-School Education, Integrated Teacher Education, and Ph.D.) for pre-service and in-service 'training/ professional development' of teachers and teacher educators.

iii. Three, besides the above, there are Education Departments in various undergraduate colleges (eg in states of Odisha, Jammu, Kashmir, north-east states, West Bengal, some colleges in the University of Delhi, etc) which offer general and honours programmes in the discipline of 'Education', combining largely various interdisciplinary areas relating to education, education as a distinct field of study and in some cases some school practice teaching. The visualization of 'Multidisciplinary' in higher education under NEP 2020 is concerned with improving the 'pedagogy' of teaching-learning, 'research' in the pedagogy of teaching-learning, and the development of multidisciplinary and interdisciplinary understanding of students and graduates (by pulling courses from other disciplines). The same objective is also largely addressed by the Teaching-Learning Centres (TLCs) and Centres for Excellence in Curriculum and Pedagogy under the same PMMMNMTT scheme. The Inter-University Centres for Teacher Education (IUCTE) under PMMMNMTT caters to the research and development (R&D) needs of teacher education in the country.

a) ***In stand-alone Teacher Education Institutes (TEIs)***

All existing stand-alone TEIs must aim to become multidisciplinary HEIs. This will bring about a major transformation in the preparation of appropriately qualified teachers by ensuring high-quality training and exposure to teacher trainees for multidisciplinary education. Because teacher education requires multidisciplinary inputs, all programmes for the initial preparation of professionally trained teachers will be moved into multi-disciplinary HEIs in a phased manner. Currently, most TEIs are stand-alone institutions. This has led to the intellectual and professional isolation of teacher education and their faculty from the rest of the disciplines.

b) ***Education Departments in Multidisciplinary HEIs***

Multidisciplinary universities and multidisciplinary colleges must also aim to establish departments in education, which aside from carrying out teaching and research, can also offer four-year integrated programmes, in collaboration with other departments such as Psychology, Philosophy, Sociology, Neuroscience, Indian languages, Arts, History, Literature, Science and Mathematics.

Accordingly, the following are to be considered further:

i. What will be the structural arrangement for such multidisciplinary departments?

ii. What programmes and functions will such departments undertake?

iii. What linkages will they have within the HEI, across HEIs and across all 'Education/ Teacher Education' institutions/ departments/ schools in the country?

iv. In what way will these Education Departments contribute to the implementation of NEP-2020, especially in respect of curriculum and pedagogy (including multidisciplinary and holistic education), technology-enabled blended learning, skilling and employability, social and life and happiness skills, cutting-edge research in all areas of education, teacher and teacher educator professional development and strategic policy-organization-management of the education system in the country.

I. Structural Arrangement

Considering a large number of universities and colleges, it may not be feasible to open education departments in all institutions in one go. Therefore, an attempt should be made to open Education Departments in select multidisciplinary universities and colleges. Subsequently, other universities and colleges may be taken up in a phased manner for the purpose. Further, these, along with the existing Education Departments in universities and colleges, should be involved in the implementation of NEP 2020 — the already existing Education Departments may be upgraded to play a strategic role in the implementation of NEP 2020 and the planned Departments need to take initiative to supplement the national and institutional initiatives toward its implementation. The existing Education Departments may do hand-holding to guide the new Departments of Education. The norms and standards followed by UGC should be applicable to these selected institutions. The existing as well as planned Education Departments may preferably be named as 'School of Education' in universities and as 'Department of Education' in colleges. More stress should be given to linkage of their courses and programmes to the job market, national and regional development needs and needs of life and the community.

II. Functions and Programmes

The Education Departments need to go beyond contributing to the value of design and delivery of 'education/teacher education' to include the strategic planning and organization and management of education. While the Education Department itself will be multidisciplinary, it will function in tandem with other disciplines contributing further toward multidisciplinary and interdisciplinarity. There should be multi-units or centres or special groups in each Education Department, especially in areas of policy studies in education, educational studies (i.e. foundations of education), equity and inclusion, educational leadership and governance, special needs education, comparative and international education, interdisciplinary research, besides the areas which directly contribute to enriching the other disciplines, like curriculum and pedagogy (especially interdisciplinary pedagogy), teaching-learning including technology-enabled learning and blended learning, assessment and evaluation, language and education, etc. The existing Education Departments need to be relooked at/ re-examined so as to revamp their functions and programmes — they are supposed to take a lead role in the implementation of NEP 2020 (resource development, training, and research). The Education Departments are to primarily offer the following programmes and undertake the following functions:

- Design, development, and offer of certificates, diplomas, degrees, and add-on/ skill-based courses relating to the area of study of 'Education' and in specialized areas of Curriculum and Pedagogy, Educational Technology/ Technology-Enabled Learning (TEL), Assessment and Evaluation, Special Needs Education, Educational Planning and Management and Leadership, Educational and Vocational Guidance and Counselling, *Yog Shiksha*, among others so as to develop specialized experts in these areas for operation of education structure and function in the country, as also developing experts in specialized areas for other departments/ disciplines. There could be 'general' areas as well as 'specific' areas of intervention. These could address a range of levels starting from pre-school education up to higher education. These areas of study should be linked to skilling and employability in respective sectors. While courses from these programmes (including online courses) can be taken up by other departments/ disciplines (under 'holistic and multidisciplinary education'), the programmes of the Education Department can also take up courses from a variety of disciplines, including online courses. In addition, all departments, irrespective of discipline, should ensure that the Ph.D. scholars take training in teaching/education/ pedagogy/ writing related to their chosen Ph.D. subject during their doctoral period. Ph.D. scholars may

also be assigned 4-6 hours per week of teaching/ research assistantship for conducting tutorial or lab work and evaluations in order to gain additional experience along with their research work.

- Conduct cutting-edge research, develop digital and other professional development resources, collate best practices and undertake continuing professional development and scholarship of teaching and learning in above noted and emerging areas of higher education, including MOOCs, OERs, micro-credentials, machine learning, blended learning, social technologies and teaching-learning-assessment, etc. They will promote team/ network of teaching and research, by borrowing expertise from other departments in the institution; and adopt a clearing house approach for implementing collaborative/ multidisciplinary research programmes. They will generate good practices in various areas of educational application and contribute to facilitate educational policy formulation and implementation. The activities and outputs of TLCs and CECPs under PMMMNMTT should be taken into consideration so that linkage between Education Departments and these centres can be maintained.
- It will be left to the Education Departments to take a considered view and keeping in view the infrastructural and human resource positions, to offer both in-service programmes and pre-service ITE programmes as per laid down procedures and norms. There are two models which could be considered for this — one is the existing NCERT/ RIE model of integration and the other could be a collaborative (across disciplines with education as nodal) model of integration. The offer of teacher education programmes should be guided by the demand and supply studies conducted by any designated agency and/ or the regulator NCTE. For offer of integrated teacher education programmes (which need to be distinct for pre-school, elementary, secondary and senior secondary), structural and functional changes in the school sector as stipulated in NEP 2020 should be taken into account

Collaboration between HEIs in Student Projects

NEP–2020 aims for holistic education to develop well-rounded individuals. The four-year undergraduate programme has been proposed for students to experience a holistic education, with the fourth year of the programme focusing on the research component. Faculty with backgrounds in different disciplines will provide the perfect opportunity in guiding students pursuing UG (hons. with research) and Master's programmes. Multidisciplinary projects can provide students with the valuable training required to assume multidisciplinary roles. Faculty from different institutions of a cluster can be encouraged to design multidisciplinary projects in areas of National priority and supervise students interested in multidisciplinary research. The institutions should work out the modalities of collaboration between them in enabling faculty members to supervise UG and PG students in research.

Most industries in the manufacturing sector in India are in the micro, small, and medium categories and they largely lack the capacity, in terms of R&D strengths, to face global challenges. It is important that graduates assume multidisciplinary roles. With their contribution to providing employment and to the Gross Domestic Product (GDP) they form an important part of the national economy. However, the Micro Small, and Medium Enterprise (MSME) sector, in general, is characterized by very low investment in R&D, and as a consequence, the research activities in the sector are always low-key. The huge pool of universities and colleges employing many faculty members and enrolling a huge population of students in the country if collaborate with MSME, the huge potential therein can be productively used for running an effective education system and R&D for the industry. If the industry can be made to see value in investing efforts in the university eco-system, the R&D potential therein can be used to serve the needs of the country, and, a lot of gains can be achieved in bringing prosperity to the nation. Similarly, students and faculty may be encouraged to undertake projects on issues that local communities face or for the welfare of local artisans and crafts persons.

Role of University and Government

Role of the Parent University

To identify the potentials of colleges and to encourage them by providing timely approval to their proposals and help to nominate representatives in various committees for the proper functioning of cluster colleges and enable collaboration between institutions.

Role of the State Government

Given the size of our Higher Education System and the variety of HEIs with many single-stream institutions, it may not be viable to introduce multidisciplinary education in all HEIs simultaneously. Therefore, for all HEIs to plan to become multidisciplinary institutions, a hub and spoke model where a certain number of HEIs will be identified as the hub institutions and transform them into multidisciplinary institutions. These 'hub' HEIs can, in turn, develop a specified number of 'spoke' institutions. Over some time, they will have a rapid multiplier effect so that by 2030 there will be at least one large multidisciplinary HEI in or near every district.

Grievance Redressal Mechanism Required for Collaborating HEIs

- Institutions entering into academic collaboration shall address matters relating to the grievances of students and legal matters relating to the collaboration.
- The Commission could, either *suo moto* or based on any complaint from any quarter may initiate an inquiry, including physical inspection, of the collaborative arrangements. After giving the opportunity of representation and hearing to the collaborating institutions and after being convinced that the collaborating institution(s) is/ are not functioning according to the guidelines, the Commission may rescind the approval for collaboration. However, the students who have already enrolled for such courses or programmes will be permitted to continue till they acquire the requisite qualification.

Conclusion

The cluster system is an ideal system that requires a broad mind and a high level of tolerance in sharing the physical and intellectual resources of the colleges including that of self-financed colleges. The mindset and methods that will be deployed in overcoming the difficulties and constraints will decide the fate of clustering. One of the questions that arise with the cluster approach proposal is how they function at the ground level and also about their sustainability. However, the cluster model is a tried and tested approach for a long time. In fact, as mentioned above, in school education this approach of school management was used for a long time in different countries across the globe (Bray, 1987). For higher education, the clustering of colleges is one of the components in the RUSA scheme of the Ministry of Education, Government of India. Its working and sustainability depend on the process of formation and required supporting system along with the appropriate regulatory framework. Besides, from its inception, it began functioning in self-financing mode and began charging the students. There are other experiments going on in other states. There are two cluster universities formed recently in Jammu and Kashmir (Govt. of J&K, 2018). Similarly, there is an experiment of cluster colleges in Kerala. The Government of Telangana state can initiate this experiment at the state level or on a pilot basis with colleges of the chosen district(s) or region within the state. The success of the experiment depends on the rigour of the ground-level preparatory work and regulatory framework along with guidelines and procedures engaged in the clustering process. An innovative operational management system for each cluster is a key component of its success.

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NIRF 2021: An Analysis of Non-science Colleges

B Elango*

The National Institutional Ranking Framework (NIRF) was first introduced in 2016 with the goal of evaluating and ranking Indian academic institutions in various categories. This framework's most recent edition published in 2021, including a list of institutions divided into 11 categories: overall, university, engineering, management, pharmacy, college, medical, law, architecture, dental, and research. Teaching Learning & Resources (0.4), Research & Professional Practice (0.15), Graduation Outcome (0.25), Outreach & Inclusivity (0.1) and Perception (0.1) are the five main parameters that each college is evaluated on. There are sub-categories for each parameter. It is undeniable that the primary goal of colleges in India is to impart teaching and learning in certain subject areas. The NIRF data has previously been used in a number of investigations. For example, Sivakumaren & Rajkumar (2019) examined the publication of universities in NIRF, Kumar, Singh & Siwach (2021) analysed the top 100 universities in NIRF 2020, Kappi & Biradar (2021) analysed the research output of the three leading universities with CPEPA status in Karnataka ranked in NIRF 2020 and Udaiyar (2019) analysed the performance of engineering colleges in NIRF 2018. On the other hand, no comparison of non-science colleges has been made. The goal of this research is to fill that gap. There are two types of colleges in the college category: science (which includes physics, chemistry and biology), and non-science (other than science subjects such as mathematics, social science, and home science). This short analysis focuses on the performance of non-science colleges in the NIRF 2021: their rank and change from 2020 to 2021, their score in various parameters, the highest scoring college in each parameter, which areas colleges improved for rank improvement, and faculty details.

The relevant data was acquired from various sources, including NIRF portal (https://www.nirfindia.org/Home), DCS formats submitted by colleges and their websites. The type of college, its location, rank, overall and specific parameter scores, and faculty details have all been collected. MS-Excel was used for all the analyses and a separate spreadsheet was developed for data collection and analysis.

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Findings

There are only 13 non-science colleges (13% of the total) and 87 science-based colleges among the 100 colleges ranked in the college category. It demonstrates the dominance of science-based colleges in the NIRF rankings. Seven out of 13 non-science colleges were ranked between 1 and 50, with the remaining six ranked between 51 and 100. There were seven from Delhi, two from Haryana, and one each from Tamil Nadu, Kerala, Maharashtra and Karnataka. Notably, two Delhi-based non-science colleges (Lady Shri Ram College for Women and Shri Ram College of Commerce) were listed among the top 10 in this category. Constituent (n = 5) and autonomous (n = 4) colleges outperformed others when it came to college status. Their overall score ranged from 50.84 to 69.44 out of 100.

Colleges significantly underperformed in research and professional practice (RP), and perception (PR) ranked in the top 100 as well (Table 2). The IC College of Home Science in Hisar, for example, received no points for perception. St. Joseph`s College of Commerce in Bengaluru, on the other hand, received a 0.16 out of 100 for research and professional practice.

The colleges with the highest scores in each parameter are listed in Table 3. Rajagiri College of Social Sciences, Ernakulam achieved the highest score of 78.61 for TLR which considers student strength, faculty-student ratio, faculty quality (i.e., Ph.D), and financial resources. Shri Ram College of Commerce, Delhi received the highest score of 77.25 for Outreach and Inclusivity, which takes into account student diversity such as region, gender, physically challenged, and economical position. Lady Shri Ram College for Women, Delhi obtained the highest scores in the three parameters of RP (14.56), GO (91.4), and PR (90.17). To determine Research and Professional practice, the number of publications in two databases (Web of Science and Scopus) and their quality in terms of the number of citations acquired are used. The Graduation Outcome includes placement and higher studies, performance in examinations, and median

Table 1: Rank and overall Score of non-science Colleges

College	Type	State	Abbrs.	Rank 2021	Overall Score (100)
Lady Shri Ram College For Women, Delhi	C	Delhi	LSRC	2	69.44
Shri Ram College of Commerce, Delhi	NA	Delhi	SRCC	10	66.39
Madras School of Social Work, Chennai	AU	Tamil Nadu	MSSW	30	58.59
Rajagiri College of Social Sciences, Ernakulam	AU	Kerala	RCSS	31	58.23
Kamala Nehru College, Delhi	G	Delhi	KNC	33	57.68
I. C. College of Home Science, Hisar	C	Haryana	ICCHS	38	57.15
Jesus & Mary College, Delhi	C	Delhi	JMC	41	56.15
Ramanujan College, Delhi	C	Delhi	RC	53	54.68
Indraprastha College for Women, Delhi	C	Delhi	ICW	68	53.18
College of Social Work, Mumbai	AU	Maharashtra	CSW	71	52.86
St. Joseph`s College of Commerce, Bengaluru	AU	Karnataka	SJCC	74	52.31
Government Home Science College, Chandigarh	G	Haryana	GHSC	78	52.22
Shaheed Sukhdev College of Business Studies, Delhi	NA	Delhi	SSCBS	94	50.84
AU = Autonomous; C = Constituent; G = Government; NA = Non-Autonomous					

Table 2: Distribution of colleges by individual parameters

College	Overall Score	TLR	RP	GO	OI	PR
LSRC	69.44	71.09	14.56	91.40	69.46	90.17
SRCC	66.39	72.46	2.93	89.76	77.24	68.06
MSSW	58.59	70.70	1.75	89.20	63.14	14.37
RCSS	58.23	78.61	9.79	74.49	53.63	13.42
KNC	57.68	72.90	8.34	78.19	65.69	11.47
ICCHS	57.15	76.76	0.27	83.22	56.04	0
JMC	56.15	67.33	3.08	78.97	60.37	29.82
RC	54.68	63.00	8.79	84.27	64.75	6.13
ICW	53.18	67.18	3.74	68.71	66.10	19.63
CSW	52.86	68.70	0.21	75.71	58.08	6.13
SJCC	52.31	60.38	0.16	82.34	61.07	14.37
GHSC	52.22	70.75	0.63	67.87	56.06	12.46
SSCBS	50.84	61.32	6.50	79.30	52.65	2.56

Table 3: Highest Scoring Colleges in each Parameter

Parameter	Top Scored College
Teaching, Learning & Resources (TLR)	RCSS
Research & Professional Practice (RP)	LSRC
Graduation Outcome (GO)	LSRC
Outreach & Inclusivity (OI)	SRCC
Perception (PR)	LSRC

salary. The Perception score is calculated using the opinions of academic peers and employers about a certain college.

Lady Shri Ram College for Women, Delhi remains in the same position as the other 13 colleges, while six colleges gain spots and six colleges lose positions. IC College of Home Science, Hisar rose 11 places while Shaheed Sukhdev College of Business Studies, Delhi dropped 37 places.

Table 4 illustrates where the colleges focused their efforts in order to improve their positions. It is clear that colleges that focus on a variety of factors increase their rankings significantly. All six colleges focused on research and professional practice, whereas five colleges on outreach and inclusivity. It also recommends areas where you should concentrate your efforts in order to improve your ranking.

Figure 1: Rank Changes of the Colleges from 2020 to 2021

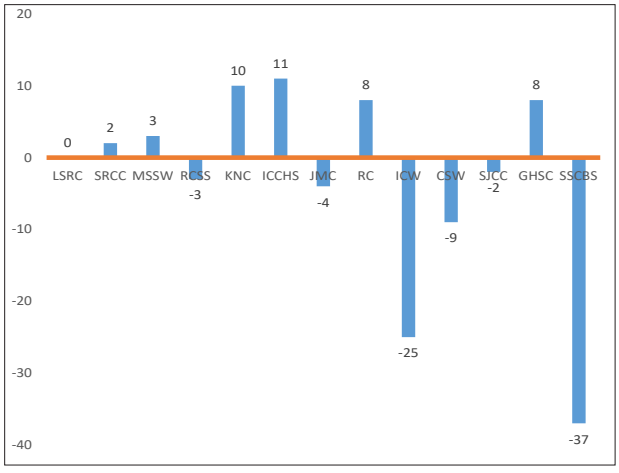


Table 4: Focused area for rank improvement

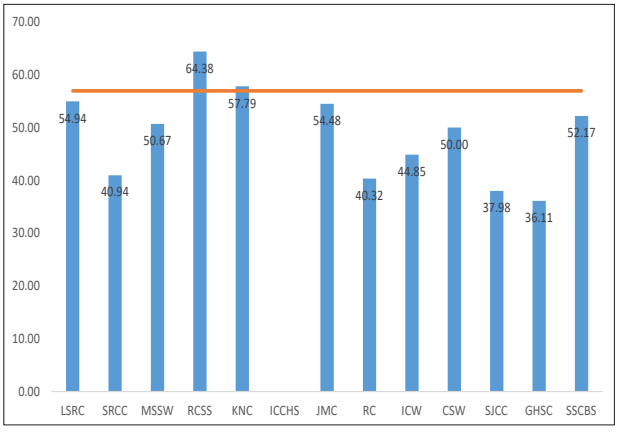
College	Change	TLR	RP	GO	OI	PR
SRCC	2		+	+	+	
MSSW	3	+	+			+
KNC	10	+	+	+	+	
ICCHS	11		+	+	+	
RC	8		+		+	+
GHSC	8		+		+	+

In the 13 colleges (Figure 2), Rajagiri College of Social Sciences in Ernakulam has the highest share of Ph.D faculty (64.38%) followed by Kamala Nehru College in Delhi with 57.79%: these two colleges only received a higher share than the average 56.94% of top 100 colleges (refer to page no.9 of the Indian Rankings 2021 report available at *https://www.nirfindia.org/nirfpdfcdn/2021/flipbook/index.html#p=1*).For research and professional practice, Rajagiri College of Social Sciences, Ernakulam, on the other hand, obtained the second highest score (see Table 2). There is no information on the faculty at IC College of Home Science, Hisar having a Ph.D.

Conclusion

The results of the study reveal that science-based colleges dominated the NIRF college category. More than half of the non-science colleges (n = 13) ranked in the NIRF 2021 are from Delhi, with two colleges ranking in the top ten. Constituent and autonomous colleges did well in the rankings. Six colleges gained their positions,

Figure 2 - Share of faculty with PhD



with the majority of them focused on research & professional practice, and outreach & inclusivity. Two of the 13 colleges have a higher percentage of Ph.D faculty than the top 100 colleges on average. Colleges significantly underperformed in research and professional practice, and perception ranked in the top 100 as well. Future studies may be conducted on the research productivity of these colleges, which will be beneficial to all stakeholders as well as policy makers.

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Never-ending Quest for Knowledge and Wisdom

Padma Vibhushan K Kasturirangan, Former Chairman, ISRO, Chairman of Drafting Committee, National Educational Policy-2020 and Chairman, National Curriculum Framework, Ministry of Education, Government of India delivered the Convocation Address at the First Annual Convocation Ceremony of Bengaluru City University, Karnataka on April 11, 2022. He said, "I hope that the knowledge, insight and light you have gained in your Alma Mater will provide you with sufficient perception to tread into the unknown and chart your way in this competitive world. Learn from your past, but, envision your future. " Excerpts

I deem it a great privilege and honour to address the maiden Convocation of Bengaluru City University. I would like to thank the Honourable Chancellor, the Pro-Chancellor, the Vice Chancellor and Members of the Management of BCU for this gesture done to me. On this august occasion I would like to congratulate each and every one of the graduating students and recipients of various honours and their proud parents on this august occasion. I would also like to use this opportunity to greet all the members of the academic and supportive staff who in a sense are part of the pioneering team shaping the future of this university.

Hon'ble Governor of Karnataka and Chancellor of the University, Shri Thaawar Chand Gehlot Ji, has had a distinguished career as a public servant and has displayed great leadership qualities under different circumstances. His Excellency has been champion of children with disabilities and those from socio-economically disadvantaged backgrounds, serving as the Union Minister for Social Justice and Empowerment in the Government before assuming the responsibility of Governor of Karnataka. Shri Thaawar Chand Gehlot Ji has been an ardent supporter of National Education Policy (NEP) 2020 since its approval by the Cabinet. Hon'ble Chancellor's conviction that proper implementation of NEP 2020 leading to timely opportunities to our country's youth, could make India reach the status of Vishwa Guru.

Pro-Chancellor, Dr Ashwath Narayanji, a multifaceted personality, is one of the most dynamic Ministers of Karnataka government, charged with the most crucial portfolio of education and related matters. Sir, your vision, enthusiasm and passion have positively influenced the progress of NEP 2020 in the past 2 years; with Karnataka becoming the first state in the country to implement NEP 2020 in letter and spirit.I am sure with this momentum gained under your leadership, Karnataka will set an excellent example to the country as to how to confront the various challenges in progressing the policy. I pray for the success of this historical endeavour from your side and also thus bring a sense of fulfilment, achievement and satisfaction to the people of Karnataka in their quest for the creation of a vibrant knowledge society, Thank you Sir, for this.

Vice Chancellor, Prof Lingaraja Gandhi, has had a very illustrious career as an academic, researcher and an institution builder spanning nearly 38 years. I am sure, this university stands to gain considerably from his rich background, experience, commitment and innovative approaches, in speedily transforming into a futuristic education system, as envisaged in the NEP 2020. I also use this opportunity to compliment the academic staff; each of you have a critical role to play in this evolutionary phase of the institution, demanded by the imperatives of a 21st century knowledge society.

As we assemble here for this august function, we stand greatly inspired by the historical significance of Central College (now BCU), as the seat of erudition and scholarship spanning over more than 150 years. The - pintellectual legacy of BCU encompass such all-time greats such as Sir M Visweswaraya, Sri. C Rajagopalachari, Dr Homi Bhaba, Justice M.N. Venkatachalaiah and Prof. CNR Rao to name a few. The hallowed portals of this Institution have witnessed the passage of many such luminaries in the field of education, science, arts, culture, morality and spirituality providing an enriching ecosystem to the students to reach higher level of creativity. The extraordinary ecosystem of Bangalore, stemming

from the high quality and diverse educational choices on one side and exceptional opportunities for professional pursuits in areas like IT, BT, Electronics, Aerospace, Aeronautical engineering, besides entrepreneurship and start- ups on the other side provides unique ambience for the younger generation to thrive and succeed in life.

My dear young friends, as the first group of students graduating from this historic institute, you are in a sense pioneers and thus the torch bearers of the heritage of this prestigious Institution. May this rich ambience in which you have grown and pursued your learning provide you with necessary strength, courage and inspiration to seek and understand different aspects of truth and to shape your destinies. I warmly congratulate each one of you who has the proud privilege of graduating today. My best wishes go with you for your success and for achieving what you have been aspiring for and dreaming about.

Over the next decade, India will have the highest population of young people in the world, more than 50% below the age of 35 years, aspiring for high quality education. This demographic dividend must be taken advantage of. Globalisation and the demands of a knowledge economy and a knowledge society call for emphasis on the need for acquisition of new skills by learners on a regular basis, for them to 'learn how to learn' and to become lifelong learners. I am delighted to see Goal 4of sustainable development goals, set for 2030, relating to 'Quality education' mentioned on the BCU website.

With our last education policy formulated nearly 30 years ago, India now needs an educational system aligned with the aspirational goals of 21st century education while remaining rooted to India's value systems and ethos. The vision of India's new educational system as laid out in the NEP has been crafted to ensure that it touches the life of each and every citizen consistent with their needs and necessities; and helps create a just and equitable society. The policy therefore provides an integrated yet flexible approach to education, and also keeps the interconnectedness of the various phases of education in mind, as it lays out an end-to-end educational roadmap for the country. The policy articulates a broad view of education encompassing the holistic development of youth with special emphasis on kindling the creative potential of each individual, in all its richness and complexity. It aims to develop 21st Century skills in students, while also giving them enough flexibility in making choices.

I may add that this policy in its final stages was reviewed very critically by the Honourable Prime Minister Shri Modi ji. I may further point out that several interesting, insightful, and pragmatic suggestions were made by the PM, which have been duly reflected in the final version of the policy, making it a truly transformational one.

At this point, I shall briefly highlight the importance and the key role that universities play in the progress of any nation. Universities are the foundations on which Nation building rests. They symbolise academic freedom and the fountainhead of inspiration, acting as perennial sources to generate and disseminate new ideas and knowledge. Among the several models of institutions providing opportunities for higher learning in the contemporary world, Universities still occupy a central place with time- tested methodologies and value systems. They provide an effective ecosystem for interaction among diverse disciplines, a crucial element for development of an integrated view of this modern and complex world. In this process they set the example and standards for enlightened citizenship. The perpetual search for knowledge and ideas has been the hallmark of our intellectual heritage. The following quotation from Rigveda very effectively underscores the same.

आनोभद्राःक्रतवोयन्तुविश्वतः||

"Let noble thoughts come from everywhere unhindered and overflowing."

Coming now to the higher education, the two important policy shifts envisaged at the Undergraduate level are the emphasis on multi- disciplinarity and a holistic approach to education, and the introduction of a 4-year undergraduate degree program.

Major emphasis is given in the policy to the aspect of holistic, multi- disciplinary education as a foundational component at all levels of education, but particularly in undergraduate education. "Liberal Education" as it is referred to in contemporary discussions of undergraduate education, has its

origins in India's age-old idea of liberal arts dating back to almost fourteen hundred years. In the modern day social and economic landscape this age-old Indian concept is now finding recognition in a new form. As per our policy and I quote, "Liberal education explores the remarkable relationships that exist among the sciences and humanities, mathematics and arts, medicine, and physics etc., and more generally, the surprising unity of all fields of human endeavour" Unquote:

A comprehensive liberal education develops all capacities of human beings, intellectual, aesthetic, social, physical, emotional, and moral in an integrated manner. The present silo-based approach to undergraduate education must therefore transform into an integrated, multi-disciplinary, holistic approach to liberal education. I am happy to note that UGC has recently put out draft guidelines for transforming Higher education institutions (HEIs) into multidisciplinary institutions. BCU can also look to making use of those provisions in innovative ways, to further expand your offerings.

Even though there is a preponderance of graduate programs that focus on a single or a sub-discipline, there is an emergence of inter-disciplinary graduate programs in graduate training and scholarship. I am happy to note that BCU is also offering many applied undergraduate degree programs such as in Rehabilitation Science, Clinical Nutrition and Dietetics, among others. I hope you can make these into broad-based courses and if possible also include some opportunities for undergraduate research.

The separation between undergraduate and postgraduate education that has set in through the affiliation system has prevented the development of a culture of undergraduate research. This is addressed by the NEP through encouraging all universities to start undergraduate education on their campuses and for all Higher Educational Institutions (HEIs) to take up both teaching and research.

At the Post-Graduate (PG) level one of the key recommendations of the NEP relates to the strengthening of research in the University system. The policy commits to setting up the National Research Foundation (NRF), whose primary role will be to nurture a vibrant research ecosystem through adequate funding, mentoring, and careful monitoring.

The NRF was born out of the felt need to increase the quantum and scope of quality research across all disciplines, and to create a much larger workforce of trained researchers within the country, particularly within the university system. This will enable India to become a more competitive knowledge economy and help fulfil the goal set by the Hon'ble Prime Minister for an Atmanirbhar Bharat.

NRF will build research capacity across all institutions and all levels, from undergraduate to Ph.D. Many Ph.D. and Post-doctoral fellowships will be made available through the NRF. As mentioned earlier, it is very important that faculty members have a strong research background. Masters' and Ph.D. programmes must seek to provide teaching experience alongside exposure to research and also cultivate communication skills especially the ability to write well. If these steps are properly implemented, they would qualitatively improve not only teaching and research but also be an instrument for providing wide-ranging inputs for innovations and the ability to solve problems in multi-disciplinary domains of value to society such as clean air, water, healthcare systems, and climate change, challenges that demand the highest level of intellectual engagement.

Teachers are the central pillars on which all these ambitious plans rest. The NEP has given considerable attention to teachers, to their initial preparation, conditions of work, and their continuous professional development, while charging them with the critical responsibility of translating the vision of NEP 2020 into desirable outcomes for students, for society, and for the country. The initial preparation of schoolteachers will move into Departments of Education within Universities and I would like to urge BCU university to consider extending your present offering of the traditional B.Ed program (after an undergraduate degree) to include the 4-year B.Ed program to prepare school teachers and subject teachers, and to also introduce an M.Ed program to prepare teacher educators. This is the activity that will have the largest multiplier effect, and I would urge every department at BCU to engage with the education department at the university to help prepare many hundreds of teachers with various specialisations.

The NEP 2020 recognises the strengths and usefulness of ODL systems and encourages and supports it. ODL has a critical role to play in

improving access and ensuring equity, through making good quality, affordable, academic programmes available to students of all ages and from diverse categories and geographies. However, it is generally accepted that the ODL programmes available around the country are of variable quality and consequently the rate of attrition of students is high. NEP 2020 takes cognisance of this and states that '*Institutions will have the option to run Open Distance Learning (ODL) and online programmes, provided they are specifically accredited to do so'*. This requirement of a separate, additional, accreditation for ODL is necessary to ensure that the quality of content, delivery mechanisms and learner support are all monitored through the accreditation framework. The nature of ODL is such that the quality of education can lapse quite easily, due to all the additional steps involved in students being able to access and assimilate material, relative to face-to-face classroom education.

EdTech applications and research must play a crucial role not only in achieving a higher Gross Enrolment Ratio by improving access to quality higher education, but in improving the resilience of the entire educational system from disruptions such as the one we are facing today. This is something that the ODL community is very familiar with. In this regard the National Educational Technology Forum (NETF), a new autonomous entity recommended in the policy, will provide a platform for crucial dialogue between educators and education technology entrepreneurs. This will facilitate well considered strategies for the introduction of technologies into education.

Without such a platform, educators often end up repurposing technologies developed for other applications such as business, which is obviously not ideal. Further, I am convinced that EdTech is a fertile domain for entrepreneurs, and the NETF will help these entrepreneurs, better understand the kinds of challenges educationists are facing so that they can develop effective technological solutions. NETF will have four important functions. Firstly, it will provide independent, evidence-based advice to Central and State government agencies on which technology- based interventions will effectively address specific challenges. Secondly, it will help institutions build intellectual capacities for EdTech. Thirdly, NETF will envision strategic thrust areas in EdTech. Lastly, NETF as a deliberative body will work closely with NRF to direct research funding towards promising avenues in EdTech.

BCU could consider hosting a Centre of Excellence in Educational Technology and work closely with the proposed National Educational Technology Forum (NETF). In the process, BCU could provide innovative and pioneering inputs towards these activities. I understand that work on setting up the NETF is also already underway.

The policy has also paid special attention to the promotion of Indian languages, arts, and culture. Needless to emphasize, India is a treasure trove of culture developed over thousands of years and manifested in the form of arts and crafts, works of literature, customs, traditions, linguistic expressions, heritage sites and so on. The promotion of Indian arts and culture is important both at the national and individual level.

Moving out of the discussions on aspects of the educational policy, I would like to share my own experiences in the context of the challenges that the professional world can pose to you youngsters in future. I use my own association with ISRO and some of the lessons which I learnt to exemplify this.

Central to the successful accomplishment of ISRO's achievements is the strong, appreciative and understanding leadership: I take the example of Prof. Satish Dhawan to share with you the type of qualities that a leader should possess. He commanded respect among professionals and non- professionals because of the value systems he brought to bear in the governance of ISRO, which all of us admired. He helped to create an ecosystem where people could work together in teams without an individual losing his or her identity. Further, he was very familiar with the technical, managerial, financial and other important dimensions of the organisation and took considerable pains to understand and critically assess the conceptualisation and implementation of different programmes by interacting with engineers and scientists at different levels. Whenever he conducted a review, which he did quite often, we always prepared carefully and extensively to face his incisive and well-crafted questions. In the face of a failure, he took the full responsibility and thus shielded us against outside criticism. He was fair and

always took decisions, without showing any bias or favour. His leadership qualities made the organisation truly professional and goal oriented. These and many other qualities that he possessed are important for any leader to emulate, while aspiring to rise high in professional life. Needless to emphasize, this calls for tremendous efforts to marshal one's own mental and physical resources, sometimes to the limit.

One unique aspect of India's successful space program that I would like to emphasise is its ability to enforce the highest standards of quality and excellence as a part of each and every endeavour related to building a satellite or a rocket. This needs to be a sustainable culture and cannot be a one-shot affair since each space mission demands its own highest level of these practices.

My young friends, your dream for yourself, for your family, for your city or village will ultimately become the dream for India. Therefore, dream you must and then realize those dreams with dedication, commitment and hard work. It is in your hands to usher a new era of hope and abundance and equity. What you need is new spirit of hope and confidence in yourselves. I hope that the knowledge, insight and light you have gained in your Alma Mater will provide you with sufficient perception to tread into the unknown and chart your way in this competitive world. Learn from your past, but, envision your future. The quest for knowledge and wisdom should guide you in realising all these aspirations

My dear graduates, I would like to conclude my address quoting this Subhashitam.

नचोरहार्यंनचराजहार्यंनभ्रातृभाज्यंनचभारकारि।
व्ययेकृतेवर्धतएवनित्यंविद्याधनंसर्वधनप्रधानम्॥

The wealth of knowledge is the greatest of all forms of wealth – It cannot be stolen like money or possessions; it cannot be taken away or annexed like land; nor can it be divided among brothers like inherited property – it is never a burden. The wealth that is knowledge grows and increases even as it is distributed.

The spirit of today's function is truly a reflection of these words of wisdom. From the depth of my heart, I wish each one of you, success in all your future endeavours. In all that lies before you, may God grant you wisdom, success and true sense of fulfilment of your cherished ideals and goals.

Thank you. ❑

CAMPUS NEWS

Faculty Development Programme on Latest Perspectives of Research

An Eleven-day Faculty Development Programme on 'The Latest Perspectives of Research in Behavioural Sciences (Interdisciplinary)'was organized by the Department of Teacher Education, School of Education, Central University of South Bihar, Gaya, under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) Scheme of Ministry of Education, Govt. of India through online mode, recently. The main objective of the programme was to acquaint the teachers of higher education institutions with the new techniques and strategies of research in behavioural science.

The Inaugural Session of the programme was chaired by Prof. Kameshwar Nath Singh, Vice Chancellor, Central University of South Bihar, Gaya, and Prof. Harikesh Singh, former Vice Chancellor, Jai Prakash University, Chapra, Bihar was the Chief Guest of the programme. Prof. Kameshwar Nath Singh made the audience and participants mesmerized with his words of wisdom in his presidential address during the session. He stated that research is a rigorous practice which needs passion, perseverance, honesty and dedication. It makes the teachers capable and competent enough to bring quality education.

Prof. Harikesh Singh, in his speech in the inaugural session, emphasized that every research must add an iota of knowledge to the existing knowledge. He said that the Indian Knowledge System must be given priority in research through the medium of Indian languages. A total of 113 participants from various universities and colleges across 20 Indian states took part in the programme. A total of 25 resource persons (1 from Indiana University, USA and 24 from different reputed universities/institutions of the country) contributed to the programme by enlightening and enriching the participants on the latest perspectives on research in behavioural sciences across 40 sessions during the programme.

The main focus areas of discussion in the programme were introduction to Research and its types, pre-positivism, positivism and post-positivism in research, qualitative research perspectives in relation to quantitative research perspectives, qualitative approaches to study human behaviour, quantitative and qualitative research tools, behavioural science research and research in general sciences-A comparison, experimental research and its designs, semantic differential analysis, Q-methodology, The context and techniques of using statistics in behavioural research, uses of statistical software for data analysis in behavioural research, historical research-A qualitative research method in behavioural sciences, policy analysis- purposes and processes, grounded theory research, ethnomethodology, symbolic interactionism, narratives, phenomenological research, discourse analysis, interpretative study, naturalistic inquiry, participatory research, case study, content analysis, triangulation, significance and process of using mixed methods research in behavioural sciences, behavioural research for innovation and development, frontline areas of behavioural research, interdisciplinary research in behavioural sciences-the way forward, research issues in diversified behavioural sciences- social sciences, psychological sciences, educational sciences and other such fields, issues of quality of research in behavioural sciences-the global perspective and others.

The valedictory session was chaired by Prof. Prakash Chandra Agarwal, Principal, Regional Institute of Education, NCERT, Bhubaneshwar. He inspired the participants to be honest and transparent while conducting research in behavioural sciences. He suggested that research requires patience and is a time-consuming affair, therefore, mutual cooperation or collaboration is important in the process of conducting research. The active involvement and cooperation of Prof. Kameshwar Nath Singh, Vice Chancellor, Central University of South Bihar, Gaya led the programme towards its success in the self-sustaining mode. Prof. Kaushal Kishore, Head, Department of Teacher Education, and Dean, School of Education, Central University of South Bihar, Gaya provided help and cooperation for making the programme successful.

Dr. Tapan Kumar Basantia, Nodal Officer of the PMMMNMTT Scheme and Associate Professor,

Department of Teacher Education, Central University of South Bihar, Gaya was the Coordinator of the programme.

The programme was coordinated by Dr. Tapan Kumar Basantia, Nodal Officer of the PMMMNMTT Scheme and Associate Professor, Department of Teacher Education, Central University of South Bihar, Gaya. Dr. Mitanjali Sahoo, Assistant Professor, Department of Teacher Education, Central University of South Bihar, Gaya and Dr. Sandeep Kumar, Assistant Professor, Department of Teacher Education, Central University of South Bihar, Gaya were the Co-coordinators of the programme. The programme acted as a platform to acquaint the faculty members of Higher Education Institutions across the country with the contexts, processes, outcomes, issues/problems, challenges and future prospects of research on behavioural sciences, especially from interdisciplinary perspectives.

NLUD-LDRN General Conference

A three-day NLUD-LDRN General Conference was hosted by the National Law University, Delhi during August 19-21, 2023 through blended mode. The Conference will present a unique opportunity for scholars from South Asia to share their ideas regarding the development challenges of the region with scholars from other parts of the Global South and North. The Conference will further serve as an opportunity to forge academic and research partnerships among the participating scholars and institutions.

The event is taking place in the context of pull and pressure of globalisation and localisation. While globalisation produces homogenisation and sameness, localisation produces uniqueness and differentiation. The simultaneous but paradoxical processes of globalisation and localisation have created deep ambivalences in the trajectories of law, justice and development in the countries of the Global South. They are often unpredictable, contradictory, plural and heterogeneous. Therefore, the real challenge before the academia and researchers engaged with the various facets of law and development is how to address and achieve justice for the people. Some of these issues will be discussed during the Conference.

The ever increasing interaction between global legal policy processes and institutions with the domestic ones have renewed the interest of governments, the legal community, policy makers and researchers to examine the role of law and possibilities of reform to meet the objectives of development challenges and inclusive growth. Research in the field of law and development, over about three quarters of a century, has unambiguously established that law plays an emphatic role in addressing the challenges related to economic development, growth and distributive equality in the countries of the Global South and elsewhere. Law and development research sits at the cross junction of disciplines as varied as economics, sociology, political science, cultural studies and many more, including law. Without doubt it is truly an interdisciplinary field of study.

Conference Theme: Locating Justice

The areas of the event are:

- Law, development and beyond: theoretical considerations, mapping challenges and alternatives;
- Development, justice and human rights: socio-economic rights including water and sanitation rights and the right to development;
- Climate justice;
- Gender justice;
- Disability rights and justice;
- Law and justice for indigenous people, including tribal people of India;
- Globalisation , corporations, law and development;
- Suffering, injustice and the dialectics of law and development;
- Democracy, digitalisation, development and law; and
- International law, institutional governance and development.

For further details contact Coordinator, Prof. Maheshwar Singh, National Law University, Delhi Sector 14 Dwarka, New Delhi, Delhi -110078, *For updates, log on to: www.nludelhi.ac.in*

ANVESHAN—National Student Research Convention-2022-23

ANVESHAN—The National Student Research Convention (2022-23) was organized by the Association of Indian Universities (AIU), New Delhi in collaboration with Ganpat University at Mehsana, Gujarat during March 16-17, 2023. *ANVESHAN* aims to identify young and bright researchers across India and encourage them to take research as a career choice so that these fresh talents with unconventional and innovative ideas/thoughts get channelized into strengthening the foundation of research in the universities. In this way, they work towards contributing proactively to the well-being of society by discovering dynamic and conceivable solutions to day-to-day challenges faced by the public in the country.

The event witnessed the participation and presentation of an aggregate number of 76 projects drawn from different zones covering pan Indian Institutions of Higher Learning from various parts of the nation that were selected for final presentation in the national event. Dr. Amarendra Pani, Director I/c and Head, Research Division, Association of Indian Universities was the Chief Convenor of the Convention. Dr Ajay Gupta, Director, Research & Development, Ganpat University, Gujarat was the Convener from Host University and Dr Usha Rai Negi, Assistant Director, Research was the AIU Coordinator. The projects were displayed under five categories, for example, (i) Agriculture, (ii) Basic Sciences, (iii) Engineering and Technology, (iv) Health Sciences and Allied subjects and (v) Social Sciences, Humanities, Commerce, Management and Law. Students pursuing undergraduate to Ph.D. level programs alongside their team managers/ mentors from different parts of the nation took part in the occasion. 165 students from 41 universities and 17 states presented 76 projects under various categories. 50+ faculty members from the universities across India participated in the national Anveshan. These projects were evaluated by a discerning jury of 15 judges from across different walks of research, who belonged to reputable institutions in India. Ganpat University is the only university in India to host the Anveshan: National Student Research Convention two times.

The participation of capable and energetic students from five distinct zones of India in particular, north, south, east, west and central zone made the event a mega show by exhibiting their talent and creativity. The appraisal of the projects was done principally at two distinct rounds, first at poster level for conceptual and operational clarity and thereafter at podium presentation for detailed assessment. All the posters which were recommended and selected at zonal level were allowed to be displayed for the entire session keeping strict confidentiality about the researchers and their affiliations.

The Convention was inaugurated by Dr. Mahendra Sharma, Pro-Chancellor & Director General, GUNI, Shri Kanubhai Patel Chairman and Managing Director Amneal Pharmaceuticals. Dr. (Mrs.) Pankaj Mittal, Secretary General Association of Indian Universities (online), Dr Amarendra Pani, Dr. Anil Bhardwaj Director Physical Research Laboratory (PRL), Dr. Dhruva Banerjee, Co-Founder & CEO Project Set, London, UK, Dr Usha Rai Negi, Assistant Director, Research AIU and Dr. Ajay Kumar Gupta, Convenor, Anveshan and Director – R&D, GUNI were the dignitaries present on the occasion.

The dignitaries were felicitated by Dr Mahendra Sharma, Pro Chancellor, Ganpat University, Dr. Ajay Kumar Gupta, Convenor, Anveshan and Director, R&D, GUNI and Dr Kiran Amin, Dy. Pro Vice Chancellor, Ganpat University. The Inaugural function of the Convention commenced with ceremonial lighting of the lamp. Dr Mahendra Sharma, Pro Chancellor, Ganpat University, welcomed the dignitaries, guests, participants and visitors. He emphasized on the needs of new innovations by students and novel technologies. He also talked about the various initiatives of Ganpat University taken in the last few years in the areas of 5G technology, 3D printing, energy innovation, EVs etc. Shree Kanubhai was of the view that organizing an event of stature of National *ANVESHAN* is a novel activity that has been initiated by the Association of Indian Universities which gives a valuable platform to students to introduce their thoughts through research proposition. he also expressed that India is tipped to be a super power in the present world and Indian researcher community will have to play a significant role in enhancing the image of India further.

Dr. (Mrs.) Pankaj Mittal, Secretary General Association of Indian Universities addressed the

students about the need of innovation and research. She stated that India is a country with over 1.5 billion people, 31% which are between the ages of 18 and 35 (Census of India, 2011). And, many of these young people are in search of jobs, despite being educated. For example, only one in every four urban males under 29 years is employed even though they hold at least a certificate or diploma (National Sample Survey Office, 2013). The aim of the government has been to create employment opportunities for youth while focusing on rapid economic growth. Entrepreneurship development is one of the mechanisms adopted by the Government of India towards the creation of job opportunities. The government's assumption is that support for innovation will enhance entrepreneurship development, paving the way for self-employment and generating employment for other which will subsequently accelerate the economic growth of the nation. The importance of innovation is increasing significantly. In the current day economic scenario, innovativeness has become a major factor in influencing strategic planning. It has been acknowledged that innovation leads to wealth creation. Even though efficiency is essential for business success, in the long run, it cannot sustain business growth. Today, we need innovators more than any time before. Every organization and business is feeling the impact of globalization, migration, technological and knowledge revolutions, and climate change issues. Innovation will bring added value and widen the employment base. Innovation is imperative if the quality of life in these trying circumstances is to improve. Innovation will make the world a better place for the younger generation.

In his remarks, Dr. Anil Bhardwajobserved that learning is a boundless process that ought to be an intuitive procedure rather than be performed from a restricted channel within the limits of classroom instruction. He delivered wonderful lecture on mission MARS to the students. AIU is performing its role as a driving force in creation of such a climate in all Indian universities in an extremely positive manner for the betterment of the nation. He demanded that students should be empowered to make the procedure of training very productive.

Dr. Amarendra Pani while delivering the introductory address provided a brief background of *Anveshan*, its foundation and the rapid strives it has made providing a structured platform to the young scholar by creating enthusiasm and vigour among them. He gave a concise brief on the structure of AIU and activities in general and the activities and initiatives of Research Division in particular. Dr. Pani expressed that the society of 21st century requires that research be given greater emphasis for supporting the advancements happening globally. He emphasized that creation of knowledge, validation, dissemination, and their application to for societal advancement should be of cardinal importance. He expressed that issues of deficient financing, lack of qualified workforce; academic surrogacy and methodological issues are some of the hindrances that are required to be taken care of for producing quality research and delivering tangible results.

The inaugural function was followed by the first phase of assessment i.e. poster presentation in which the participants were asked to display their posters on the poster stands. The posters were displayed discipline wise with specific slots and numbers allocated to the individual participants that were accommodated in different halls. The identity of the participants was kept confidential to avoid the biasness by the judges in assessing the projects. The experts/judges of respective fields of specialization visited the posters and interacted with the participants. Evaluations of posters were done based on the guidelines of AIU in separate score sheets prepared accordingly and provided to the judges individually. After the expert's evaluation the posters were open for viewing by the visitors and mentors.

The second day programme started with the participants in five different disciplines making their power point presentation before the panel of Judges, in five different halls. All the participants who had their posters evaluated, made their presentation for 7 minutes each followed by interaction with Judges for 3 minutes. The presentation was kept open for audience but others except judges were not allowed for interaction. All the panel judges for five different disciplines compiled their scores and completed the grading processes.

In the valedictory address, Dr. Ajay Gupta, Research Director, and Convenor of Anveshan event delivered the welcome Address & presented National Anveshan Report. Shri Deepak Mathur said the development of technologies, innovation and use has to be rooted in entrepreneurial and social commitment. The emerging technologies are to be developed keeping sustainability and safety in mind. Shri Pratik Modi Vice President, Engineering American Express was of the view that India has no deficiency of ability

and talent. It has been uncovered by a few researchers from foreign universities that Indian mind are among the best minds in the world. He urged that the youth power and vitality which has been relevantly quoted often as statistically profitable weapon for India should be channelized into positive avenues to yield the coveted outcomes beneficial for India. Following the valedictory address, the results of the assessments of the projects presented in the convention were announced and the winners of various categories were awarded with certificates, mementos and cash prizes amounting Rs 75,000, 50,000 and 25,000 to the first, second and third position holders of each category, respectively.

Overall, students conveyed high contentment with the straight forwardness, objectiveness in assessment process, coordinations and hospitality given to them and appreciated the friendliness and openness rendered to them at the Ganpat University campus. Everybody who took an interest and every individual who saw the initiation to the finish of the two days occasion was fulfilled and satisfied by the endeavors made to help shaping better future of the students.

The Valedictory function of the event was concluded by presentation of Vote of Thanks by Dr. Amarendra Pani, and Dr. Kiran Amin, Deputy Pro-vice Chancellor, Ganpat University. All the winners were invited by Dr Usha Rai Negi to submit their cheques detail for prize amount.

The details of the winners at the National Level under various disciplines are given below.

Agriculture Science

Rank	Topic	Name of the Students	Name of University/Institute
Ist	Aerotuber: Potato Seed Production through Aeroponics	YashkumarManilal Panchal, Meet Patel, Ayush H. Patel	Ganpat University, Mehasana, Gujarat
IInd	Development of Easy and Cost-Effective DNA Extraction and Purification Protocol	Amar Kumar Muska	Kalinga Institute of Social Sciences, Bhubaneswar, Odisha
IIIrd	Evapocooler	M Kalyan Senapati, Jiban Jyoti Behera, Suvam Roy,	Gandhi Institute of Engineering and Technology University, Gunupur, Odisha

Basic Science

Rank	Topic	Name of the Students	Name of University/Institute
Ist	Performances and Perspectives of Edible Packaging	Devatha S.M, Uthra B, Kamini K	Avinashilingam Institute for Home Science and Higher Education for Women University, Coimbatore, Tamil Nadu
IInd	PadCOM: Paper based Micro-fluidic unit for sensing Adulterants and Contaminants in milk	Upama Das Nikhil K Daimary Pohar Bora	Tezpur University, Tezpur Assam
IIIrd	A Novel Fluorescence Turn-on Ratiometric Sensor Frame Work for the Detection of Creatinine in Aqueous Medium	Sujata Bais	Pandit Ravishankar Shukla University, Raipur, Chhattisgarh

Engineering Technology

Rank	Topic	Name of the Students	Name of University/Institute
Ist	All in One Soil Health and Plant Disease Monitoring Using Machine Learning	Anurag R Lambor Amarnath Kumar Shashank Kulkarni	IIT Guwahati, Assam

IInd	URSA- User Driven Realtime Surveillance Analytics	Vishal Rajendra Pednekar, Sayali Tawhare, Nidhi Shetigam	University of Mumbai, Mumbai, Maharashtra
IIIrd	Superior Microwave Absorption of Layer Structured for EMI Shielding Application	Tanmoy Chakraborty Alisa Saha Manisha Kundu	Jadavpur University, Kolkata, West Bengal

Health Sciences and Allied subjects, Pharmacy, Nutrition, etc.

Rank	Topic	Name of the Students	Name of University/Institute
Ist	Triad Therapy, A Chrono Pharmacology Based Holistic Approach To Treat Non-Alcoholic Steatohepatitis (Nash)	Sanket Sunil Shirodkar	University of Mumbai, Mumbai, Maharashtra
IInd	To Compare the Efficacy of Botulinum Type A and iprf in Facial Rejuvination	Himani Vaswani	Swami Vivekananda Subharti University, Meerut Uttar Pradesh
IIIrd	Fabrication of Surface Decorated Graphene Oxide Nanocomposites for Label Free Prognosis of Alzheimer's Disease	Nangare Sopan Namdev	H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur, Maharashtra

Social Sciences, Humanities, Commerce and Law

Rank	Topic	Name of the Students	Name of University/Institute
Ist	TRADEX - Personal Intraday Stock Advisor	Swaraj Ramakant Mishra	University of Mumbai, Mumbai, Maharashtra
IInd	Smiling Soul	Partha Pratim Khamari Soumya Podha, Sameer Jain,	Rajendra University, Balangir, Odisha
IIInd	VERDE (Hydroponics)	Manoj C Acharya Darshini. M, Shruthi R Mohan	Presidency University, Bangalore, Karnataka

Professor Sanat Kumar Mukherjee Memorial Gold Medal

Prof S K Mukherjee Gold Medal was awarded to Mr. Sanket Shirodkar, University of Mumbai, Mumbai, Maharashtra in the category of Health Sciences and Allied Subjects, Pharmacy, Nutrition, etc. The project entitled '*Triad Therapy, A Network Pharmacology Driven Chronopharmacology Based Holistic Approach to Treat Non-Alcoholic Steatohepatitis (NASH)'*was adjudged as the best across all five categories. ❑

THESES OF THE MONTH

HUMANITIES

A List of doctoral theses accepted by Indian Universities
(Notifications received in AIU during the month of Jan-Feb 2023)

Geography

1. Saikia, Khijumoni. **Changing trends of land use and land cover pattern and its impact on the environmental sustainability of Nagaon District, Assam**. (Prof. Sailejananda Saikia), Department of Geography, Rajiv Gandhi University, Itanagar.

History

1. Dubey, Upendra. **Creation process as described in Shrimad Bhagvat Mahapuran**. (Prof. Sheetla Prasad Shukla), Department of Puranetihas, Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeetha, New Delhi.

2. Dutta, Akshay Kumar. **A critical study of Ayurvedic elements in Garudapurana**. (Prof. Makhlesh Kumar), Department of Puranetihasa, Central Sanskrit University, New Delhi.

3. Mantoo, Javid Ahmad. **An analytical study of society in Kashmir: From earliest times to 1200 C E**. (Dr. V S Parmar), Department of Ancient Indian History Cultural and Archaelogy, Vikram University, Ujjain.

LANGUAGES & LITERATURE

Bengali

1. Biswas, Wasim. **Sharadindu bandopadhyayer sahitya-O- atiprakitabad: Ekti asmikasha**. (Dr. Amitabh Kumar Biswas), Department of Bengali, T M Bhagalpur University, Bhagalpur.

English

1. Sonam, Jango. **Victimization in the Afghan socio-political context: A study of the select novels of Khaled Hosseini, Atiq Rahimi and Nadeem Aslam**. (Dr. Miazi Hazam), Department of English, Rajiv Gandhi University, Itanagar.

2. Barfa, Monika. **Discrimination in the novels of Kate Grenville: A critical study**. (Dr. Sarvpal Singh Rana), Department of English, Vikram University, Ujjain.

3. Deshpande, Sarika. **A study of Indian English novel as postcolonial narrative form**. (Dr. Mitra Mukherjee Parikh), Department of English, S.N.D.T. Women's University, Mumbai.

4. Doley, Abani. **Contextualizing the progression of the self in the novels of Bessie head**. (Dr. Miazi Hazam), Department of English, Rajiv Gandhi University, Itanagar.

5. Jamali, Nida Fareed. **The spirit of Harlem renaissance in the select Afro-American autobiographies**. (Dr. Rubel Verma), Department of English, Vikram University, Ujjain.

6. Parmar, Jayantbhai Muljibhai. **Feminism in the select novels of Mahasweta Devi, Manju Kapur and Shobha De: A critical study**. (Dr. Vipul V Kapoor), Department of English, Saurashtra University, Rajkot.

Hindi

1. Dhangar, Adarsh Kumar. **Shivmurti ke katha sahitye mein samvedna evam samajik sarokar: Ek adhyayan**. (Dr. Ram Murti Tripathi), Department of Hindi, Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot, District Satna.

2. Mimrot, Anita. **Ram bhakti shakha mein lok sanskriti**. (Dr. Uma Vajpayee), Department of Hindi, Vikram University, Ujjain.

Sanskrit

1. Anuradha. **Elements of educational sociology in Bhavabhuti's dramas**. (Prof. Lakshmi Nivas Pandey), Department of Sahitya, Central Sanskrit University, New Delhi.

2. Bar, Rabindranath. **An analytical study of Lakshmisvayamvarasamavakarah of Venakamatya**. (Prof. K. P. Keshwan), Department of Sahitya, Central Sanskrit University, New Delhi.

3. Bhatt, Pankaj. **A critical study of utpreksalankara with reference of usages in kavyas**. (Dr. Chandrakala R Kondi), Department of Sahitya, Central Sanskrit University, New Delhi.

4. Dangwal, Harischandra. **A critical study of the scientific elements as reflected in the Mahabhashya of Patanjal**. (Prof. Banamali Biswal), Department of Vyakarna, Central Sanskrit University, New Delhi.

5. Ghorai, Anup Kumar. **A comparative study on Jaina-tarkabhasha and Bauddhatarkabhasha**. (Prof. Sukanta Kumar Senapati), Department of Sarva Darshana, Central Sanskrit University, New Delhi.

6. Giri, Mamata. **Comparative circumspection between Sanskrit and Odia language as per linguistic**

views. (Dr. Durgacharan Sarangi), Department of Navya Vyakarana, Central Sanskrit University, New Delhi.

7. Hardikar, Bharat. **A critical study of mimamsa Nayamansari of Sri Pattabhirama Shastry**. (Prof. Suryanarayan Bhat), Department of Mimasa, Central Sanskrit University, New Delhi.

8. Hegde, Vani Manjunath. **A natyashastric analysis of hetvabhasjati and nigrahasthana applied in advaitasiddhi**. (Prof. Navin Holla), Department of Navya Nyaya, Central Sanskrit University, New Delhi.

9. Kajal, Sunil. **Aadhunik-sanskrit-sahityasya vikase kavivarabhagirathinandasya yogdanam**. (Prof. Ramakant Pandey), Department of Sahitya, Central Sanskrit University, New Delhi.

10. Kar, Subhasmita. **A study of Akhyanas of shatapatha Brahamanas on puranas**. (Prof. Makhlesh Kumar), Department of Veda, Central Sanskrit University, New Delhi.

11. Lal, Purushottama. **A comparative study of Yogasutra's tattvavaisharadi with Bhojavritti commentary of samadhipada**. (Prof. Markandey Nath Tiwari), Department of Sankhyayoga, Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeetha, New Delhi.

12. Meena, Om Prakash. **Prakriyakaumudhyah karak prakarasya prakashprasad teekayah vaishishtya sameekshanam**. (Dr. Gopiraman Mishra), Department of Vyakarna, Central Sanskrit University, New Delhi.

13. Mishra, Ashish. **A study of impacts of chants prescribed by the shiksha texts related to the samved on musicology**. (Prof. Manoj Kumar Mishra), Department of Veda, Central Sanskrit University, New Delhi.

14. Mishra, Itishree. **A critical analysis of yogasudhakara by Shree Sadashivendra Saraswati**. (Dr. Ashok Kumar Meena), Department of Sankhyayoga, Central Sanskrit University, New Delhi.

15. Mishra, Krishan Dutt. **A literary & cultural study of Samplava poetic collection written by Acharaya Radhavallabh Tripathi**. (Prof. Sanandan Kumar Tripathi), Department of Sahitya, Central Sanskrit University, New Delhi.

16. Mithran, Sarath. **Contribution of Bhoja's Sringaraprakasha to Sanskrit grammar**. (Prof. C L Cicily), Department of Vyakarna, Central Sanskrit University, New Delhi.

17. Mohapatra, Tapati Tapanwita. **The critical study of Mayurchitraka composed by Devarshinarada**. (Prof. Hansdhar Jha), Department of Phalit Jyotisha, Central Sanskrit University, New Delhi.

18. Panda, Sumitra. **A comparative study on Jayamangala and Matharavritti commentery of sankhya karika**. (Dr. Ashok Kumar Meena), Department of Sankhyayoga, Central Sanskrit University, New Delhi.

19. Priyanka. **Critical study of the Bhavanatakakavyam of Purnachaitanyayatindra**. (Prof. E. M. Rajan), Department of Sahitya, Central Sanskrit University, New Delhi.

20. Rekha Kumari. **Psychological analysis of personality of characters in Shishupalvadha Mahakavya**. (Prof. Lakshmi Nivas Pandey), Department of Sahitya, Central Sanskrit University, New Delhi.

21. Sharma, Anil. **The concept of yoga in the Srimad Bhagavata Matsya and Vishnu Puranas**. (Prof. Ashok Chandra Gaur), Department of Darshana, Central Sanskrit University, New Delhi.

22. Shukla, Shivanand. **A review of the refutation and new theories of the previous acharyas in Rasgangadhar from the beginning till Shaktinirupanam**. (Prof. Satish Kumar Kapoor), Department of Sahitya, Central Sanskrit University, New Delhi.

23. Tilak Raj. **A critical survey of tradition of jyotish studies in Himachal**. (Prof. P V B Subrahmanyam), Department of Jyotisha, Central Sanskrit University, New Delhi.

PERFORMING ARTS

Fine Arts

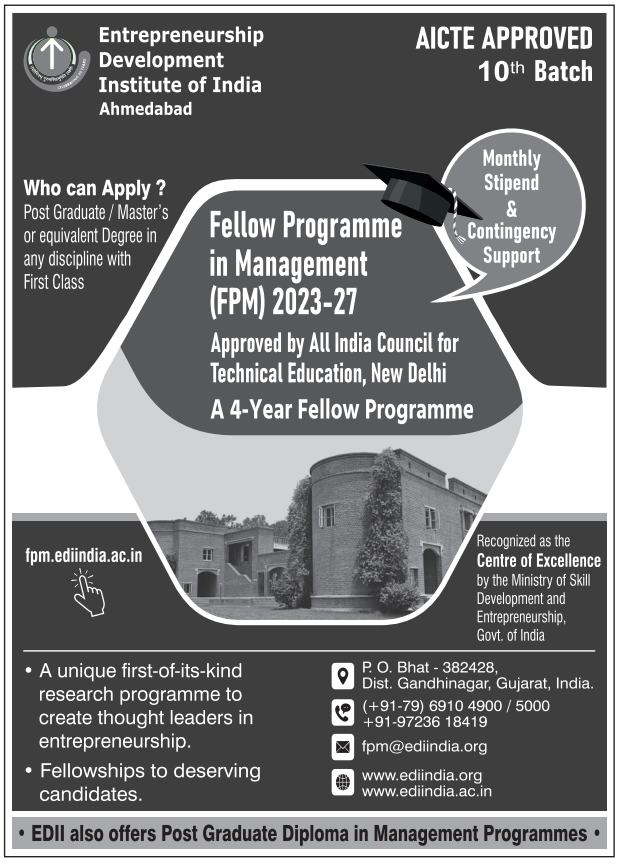
1. Gupta, Mandakini. **Bundelkhand ke shailchitroan ka lok kala par prabhav**. (Dr. Jaishankar Mishra), Department of Fine Arts, Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot, District Satna.

Music

1. Kapoor, Shiv Shambhu. **Table par prastut kee jane wali vibhin rachnaoan ke ganitiye swrup ka vishleshnatamak adhyayan**. (Dr. Vivek Phadnis), Department of Music, Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot, District Satna.

2. Mishra, Manisha. **Kathak nritey mein rasanubhuti evam soundarya bodh: Ek adhyayan**. (Dr. Vivek Phadnis), Department of Music, Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot, District Satna.

3. Pawan Kumar. **Tabla wadan mein soundarya praksh: Uttar Pradesh ke gharanoan ke sandarbh mein**. (Dr. Vivek Phadnis), Department of Music, Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot, District Satna. ❑



ST. THOMAS COLLEGE, KOZHENCHERRY

(Christian Minority Institution)
Kozhencherry P.O - 689641, Kerala State
(Affiliated to Mahatma Gandhi University, Kottayam and re-accredited by NAAC with Grade A)
Tel: 04682114566 | www.stthomascollege.info
e-mail: stckestablishment@gmail.com

F No: STC/TS/APNT/2023 Dated 01.04.2023

WANTED

Applications are invited for **Assistant Professors** (Substantive) in Malayalam - 2 (1-PWD, 1-Mar Thoma Community) & Botany-1 (PWD). Age & qualifications as per the UGC/University/ Govt. norms in force. Application forms can be downloaded from **www.stthomascollege.info.** Filled-in and signed application with supporting documents should reach the College Office **within one month** from the date of publication of this notification, with payment of Rs.1000/- by Bank-DD in favour "Principal, St. Thomas College, Kozhencherry". All appointments will be subjected to the approval by the University/Govt.

01.04.2023

Sd/-MANAGER

TITUS II TEACHERS COLLEGE
TIRUVALLA, PATHANAMTHITTA
KERALA-689101

(NAAC reaccredited 'A' grade)

Ph.No.0469-2601383, email : tituscollege@gmail.com

1. Applications are invited for the post of **PRINCIPAL** (**Direct Recruitment**) from qualified teachers as per UGC Regulations 2018. Age, qualifications, work load criteria and scale of pay as per UGC/ NCTE/ Government of Kerala/ M.G. University, Kottayam norms.
2. Applications are invited for the post of **Assistant Professor in Physical Science, One Post (Open Quota).** The **Vacancy is reserved for persons with benchmark disabilities (Hearing-Impaired)** as mentioned in Clause 34 of the RPWD Act 2016 and G.O. (MS) No.242/2022/ H.Edn. dated 18.05.2022 & U.O.20586/AC B1-2/2022/ ACAD, dated 27.09.2022. Age and qualifications shall be as per UGC/ NCTE/Government of Kerala/Mahatma Gandhi University, Kottayam norms.

For the posts 1 & 2, apply **within 30 days** of publication of this notification and the application forms can be obtained from the College Office on payment of Rs.1000/- or (Rs.1100/-by post).

Manager

WANTED

Baliram Patil Mission's
Shri Renukadevi Arts, Commerce and Science Mahavidyalaya, Shrikshetra Mahur, Tq. Mahur, Dist. Nanded - 431721 (MS)
(Affiliated to S.R.T.M. University, Nanded)

Applications are invited from the eligible candidates for the following posts (100% **Granted).**

Sr. No.	Subject	Name of the Post (Designation)	No. of Posts (Full Time)	Reservation
1	English	Assist. Professor	01	OPEN-3, SC-1, ST-1, NT-B-1, NT-C-1, SBC-1, OBC-2, EWS-1
2	Chemistry	Assist. Professor	01	
3	Physics	Assist. Professor	02	
4	Mathematics	Assist. Professor	01	
5	Botany	Assist. Professor	02	
6	Zoology	Assist. Professor	01	
7	Environmental Science	Assist. Professor	02	
8	Commerce	Assist. Professor	01	

Permission as per NOC No. JDHE Nanded/NOC/2019/25 dated 14.03.2023.

Note: For detailed information about posts, qualifications and other terms and conditions, please visit university website :**www.srtmun.ac.in.**

President
Baliram Patil Mission, Mandvi

Abhay Shikshan Kendra

Krantijyoti Savitribai Phule College of Education (B.Ed)

Dr. Babasaheb Ambedkar Bhavan Kannamwar Nagar – 1, Vikhroli (E), Mumbai – 400083

Minority Institution

APPLICATION ARE INVITED FOR FOLLOWING POSTS
FROM THE ACADEMIC YEAR 2022-23

UN-AIDED

Sr. No.	Cadre	Subject	Total No. of Posts	Category
1	**Principal**	-	01	01-OPEN
2	**Assistant Professor**	Education/Perspective and Pedagogy Performing Arts/Health and Physical Education	05	05-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)/(CD)/2018-19/1241 dated 26th March, 2019 and revised from time to time".

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

Applicants who are already employed must send their application through proper channel. Applicants are required to account for breaks, if any, in their academic career.

Application with full details should reach the **SECRETARY, Shree Krantijyoti Savitribai Phule College of Education, B.Ed. Kannamwar Nagar – 1, Vikhroli (E), Mumbai- 400083 or email- kjspclgbed.vikhroli@gmail.com within 15 days** from the date of publication of this advertisement. **This is University approved advertisement.**

NUTAN VIDYALAYA SHIKSHAN SANSTHA SAILU
DIST. PARBHANI (M.S.)

WANTED

Applications are invited for the post of **Principal** (Granted) to be filled in **Nutan Vidyalaya Shikshan Sanshta's Nutan Mahavidyalaya, Sailu, Dist. Parbhani.** Eligible candidates should submit their application along with all the necessary documents **within fifteen days** from the date of publication of the advertisement by **Registered Post Only.**

No.	Name of Post	No. of Post	Reservation
1	**Principal**	**01**	**Unreserved**

Permission as per NOC No. JDHE Nanded / NOC / 2019 / 22 Dated : 17/02/2023.

Details of advertisement & Application format is available on www.srtmun.ac.in and also on our college website : www.nutanmahavidyalaya.com.

Note :- The vacancy of Principal will be filled in subject to condition of the decision in Hon'ble High-Court Judicature of Bombay, Bench at Aurangabad, Writ Petition No.12051/2015.

Correspondence Address : -
The Secretary, Nutan Vidyalaya Shikshan Sanstha, Nutan Parisar, Sailu, Dist. Parbhani 431503.

Sd/-
Dr. S.M. Loya
President

Sd/-
Dr. V.K. Kothekar
Secretary

Nutan Vidyalaya Shikshan Sanstha, Sailu, Dist. Parbhani 431503 (M.S.)

NUTAN VIDYALAYA SHIKSHAN SANSTHA SAILU
DIST. PARBHANI (M.S.)

WANTED

Applications are invited from the eligible candidates for the following posts to be filled in **Nutan Vidyalaya Shikshan Sanshta's Nutan Mahavidyalaya, Sailu, Dist. Parbhani on GRANTED BASIS.** Eligible candidates should submit their applications along with all the necessary documents **within fifteen days** from the date of publication of the advertisement by **Registered Post Only.** The candidates of Reserve Category should submit one copy of their application to the **Assistant Registrar (Special Cell),** Swami Ramanand Teerth Marathwada University, Nanded by **Registered Post Only.**

No.	Subject	Name of Post	No. of Post	Reservation
1.	Physics	Assistant Professor	01	OBC-2
2.	Economics	Assistant Professor	01	

Permission as per NOC No. JDHE Nanded / NOC / 2019 / 22 Dated : 17/02/2023.

Details of advertisement & Application format is available on www.srtmun.ac.in and also on our college website : www.nutanmahavidyalaya.com.

Note :- The vacancies of Assistant Professor will be filled in subject to condition of the decision in Hon'ble High-Court Judicature of Bombay, Bench at Aurangabad, Writ Petition No.12051/2015.

Correspondence Address : -

The Secretary, Nutan Vidyalaya Shikshan Sanstha, Nutan Parisar, Sailu, Dist. Parbhani 431503.

Sd/-
Dr. S.M. Loya
President

Sd/-
Dr. V.K. Kothekar
Secretary

Nutan Vidyalaya Shikshan Sanstha, Sailu, Dist. Parbhani 431503 (M.S.)

FULBRIGHT India

USIEF

सत्यमेव जयते

Fulbright-Nehru Specialist Program
Opportunity to Host U.S. Experts for Short-term Duration

United States-India Educational Foundation (USIEF) invites applications from Indian institutions for hosting U.S. experts for a short-duration of two to six weeks under the Fulbright-Nehru Specialist Program. USIEF pays for international airfare and an honorarium to the expert. Host institution is responsible for the cost of housing, meals, and program-related in-country transportation.

For eligible disciplines, application procedure, and other details, visit USIEF website: **https://www.usief.org.in/Fellowships/FIC-Institutional-Awards.aspx**: and for any query, write to **girish@usief.org.in.** The last date for submission of application is **April 30, 2023.**

राष्ट्रीय औषधीय शिक्षा एवं अनुसंधान संस्थान (नाईपर)

NATIONAL INSTITUTE OF PHARMACEUTICAL EDUCATION & RESEARCH (NIPER)

(Department of Pharmaceuticals, Ministry of Chemicals & Fertilizers)

Sector – 67, S.A.S. NAGAR (MOHALI) - 160062, Punjab

www.niper.gov.in Ph: 0172-2292000, 2214682-83 & 2214688

RECRUITMENT NOTICE FOR TEACHING POST

(Advt. No.05/2023 dated 08.04.2023)

The National Institute of Pharmaceutical Education & Research (NIPER), SAS Nagar (Mohali) is an autonomous Institute of National importance set up by the Government of India, Ministry of Chemicals & Fertilizers by an Act of Parliament, to impart higher education and undertake advanced research in the field of Pharmaceutical sciences, technology and management.

Applications are invited from the eligible candidates for the following vacant post through direct recruitment basis as under:

Group	Name of the post	No. of vacancies	Cat.	Maximum Age (as on the last date of Advertisement)	Pay Matrix Level as per 7th CPC
A	Associate Professor (Medical Devices)	01	UR	50 years	Level-13A2 (Academic Pay Level) (Rs.1,39,600 -2,11,300/-

Applicants are requested to read the instructions carefully before applying. For detailed description of educational qualification, experience, other eligibility criteria and general information, please visit Institute website www.niper.gov.in/jobs.html.

Last date for submission of application form is 08.05.2023 (Monday) i.e. 30 days from the date of publication in Employment News. Duly filled in application form is required to be submitted through speed post/registered post/courier/by hand on or before the last date of submission of application.

कार्यवाहक कुलसचिव

Konkan Education Society's

ANANDIBAI PRADHAN SCIENCE COLLEGE

Nagothane, Tal. Roha, Dist. Raigad - 402 106

Email : kesalibag@gmail.com; Website : www.kesalibag.edu.in

APPLICATION ARE INVITED FOR THE FOLLOWING POST
FROM THE ACADEMIC YEAR 2023-2024.

AIDED

Sr. No.	Cadre	Subject	Total No. of Post	Posts Reserved for
1.	**Assistant Professor**	Zoology	01	01 - OBC

The advertisement is approved subject to the final decision in the Writ Petition No.12051/ 2015.

The post for the reserved category candidates will be filled in by the same category candidates (Domicile of State of Maharashtra) belonging to that particular category only.

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

Applicants who are already employed must send their application through proper channel. Applicants are required to account for breaks, if any, in their academic career.

Candidates belonging to reserved categories should send two xerox copies of their application along with the attested copy of the Caste Certificate to the Deputy Registrar, Special Cell, University of Mumbai, Mumbai – 400 032.

Application with full details should reach the **PRESIDENT, Konkan Education Society, Aministrative Office, Tal. Alibag, Dist. Raigad, Pin Code - 402 201 within 15 days** from the date of publication of this advertisement. This is **University approved advertisement.**

Sd/-
PRESIDENT
Konkan Education Society
Alibag, Raigad

Shri Sharda Bhavan Education Society's
COLLEGE OF EDUCATION (B.ED), NANDED
(Affiliated to Swami Ramananda Teerth Marathwada University, Nanded)
NCTE College Code : 113092/140288
NAAC Accredited By B^{++}

WANTED

Applications are invited for the post of Perspectives in Education, Pedagogy Subjects, Health & Physical Education and Performing Arts (Music/Theatre/Dance) Fine Arts to be filled in **Shri Sharda Bhavan Education Society`s College of Education (B.Ed), Nanded** (Permanent Non-Granted). Eligible Candidate should submit their application along with all necessary documents **within 15 Days** from date of publication of this Advertisement by Registered Post only.

Sr. No	Designation	No. of Posts	Nature	Reservation
1	**Perspectives in Education**	10	Full Time	Open -03 SC-02 ST -01 NT-C-01 OBC -02 EWS -01
2	**Pedagogi Subjects**			
3	**Health & Physical Education**			
4	**Performing Arts (Music/Theatre/Dance) Fine Arts**			

Qualification:

The faculty shall possess the following qualification:-

A) Perspectives in Education or Foundation Courses

1. Post Gragraduate degree in Social Science with minimum 55% marks
2. M.Ed degree from a recognized university with minimum 55% marks

OR

1. Postgraduate (M.A) degree in Education with minimum 55% marks
2. B.Ed /B.El.Ed. degree with minimum 55% marks
3. SET/NET/Ph.D in Education

(B) Curriculum and Pedagogic Courses

1. Postgraduate degree in Sciences/Mathematics/Social Science/Languages with minimum 55% marks
2. M.Ed Degree with minimum 55% marks
3. SET/NET/Ph.D in Education

(C) Health & Physical Education

1. Master of Physical Education (M.P.Ed) with minimum 55% marks
2. SET/NET/Ph.D in Physical Education

(D) Performing Arts (Music/Theatre/Dance) Fine Art

1. Post graduate degree in Fine Art (MFA) with minimum 55% marks
2. SET/NET/Ph.D in Fine Arts

Salary and Allowance Pay : Scale as per UGC State Government & Swami Ramanand Teerth Marathwada University, Nanded rules from time to time.

Note:

1. Preccribe application from available on the University **Website : (srtmun.ac.in).**
2. No TA and DA for attending interview.
3. Eligible Candidates those who are already in services should submit their application though proper channel.
4. 3% Reservation for physical Handicapped Candidate.
5. 30% Reservation for Women Candidate.
6. All attested Xerox Copies of certificate and other relevant document should be attached to the application.

Correspondence Address:- Secretary Shri Sharda Bhavan Education Society, I.T.M. Building V.I.P Road, Baba Nagar, Nanded-431602.

Principal

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