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# **UNIVERSITY NEWS**

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# Outcome Based Education : Time to Restructure the Curriculum in Higher Education

Selvakumar S\* and Elangovan K\*\*

It is since three decades the concept of Outcome Based Education (OBE) was proposed by William G Spady (1988), an Educational Psychologist. He defined it as Outcome Based Education means focusing and organizing school's entire programs and instructional efforts around clearly defined outcomes we want all students to demonstrate when they leave school. One can figure out two crucial aspects from the definition; explicitly set out goals to which students stand up to prove and illustrate on completion of the educational program. Another definition by Tucker (2004), reads as OBE is a process that involves the restructuring of curriculum, assessment and reporting practices in education to reflect the achievement of high order learning and mastery rather than the accumulation of course credits. Even in the preceding definition, emphasis is more on a conscious effort to altering the curriculum to suit the goal of accomplishing elevated level of skill and knowledge rather than merely aiming to procure marks/ grades/credits. No doubt, marks and credits are necessary condition to fulfill the requirements, but sufficient condition is to succeed in gaining command over knowledge, skills and attitudes.

#### **Conceptual Clarification**

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There are a few concepts, which are the components of OBE, need certain description before moving on to narrate the characteristics, and criticisms. Concepts like student–centric, teacher- centric, program outcome, program-specific outcome, learning outcome, course outcome, have to be put in perspective for better application of the same. The OBE is, fundamentally a student- centric learning model. This means teachers formulate the content that is curriculum, to devise the method of teaching, knowledge delivery and finally assessment, keeping firmly in mind the end point. Students, the main stakeholders are at the center stage. Corollary to this is learning outcomes; what is expected of a student in this context is to be able to know, understand and do. A possible interpretation could merely know the subject may be insufficient but a follow up of comprehension with a mental grasp would help doing something to either solve a problem or overcome a hurdle.

Before moving on to programme outcome and course outcome, it is important to know the meaning of outcome in the context of OBE. According to Spady G W, outcomes denote learning results from students to demonstrate at the end of the learning process.

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Results and demonstrative abilities have nothing to do with values, beliefs, and attitudes or even the psychological state of mind. Outcomes do not refer to merely knowing but goes beyond in action and performances in response to exposure to substance of subjects, message, ideas and techniques. To put in perspective, outcomes are to do with more than just knowing. Occurrence of outcome may be while doing or at the end of a learning process. In outcome based education, 'to base' implies to a system of deciding, defining, organizing, structuring, focusing, and operating in line with the set out principles. Priority wise, outcomes focus more on closing point, aims, aftermath and achievement.

Derivatives of OBE assume significance both in restructuring curriculum and discerning the clear-cut directions to teachers and learners to carry forward the academic journey. There are a host of outcomes, inter alia; program outcome, programspecific outcome, course outcome, exit outcome and learner outcome are discussed in this paper. A few of them may overlap with one another, however each one is different.

Programme Outcomes (POs) stands for outcomes from undergoing different programs; which vary from one program to another. General program outcomes for undergraduate and post graduate programs in Science will be different from program outcomes of arts, program outcomes of engineering, program outcomes of medicine, agriculture and so on. Program Specific Outcomes (PSOs) imply for outcomes pertaining to each branch of science, arts, engineering, medicine, and agriculture. Program outcomes of Mechanical engineering would be different from the program outcomes of Electrical engineering and so on so forth. In other words, program outcomes are referring to outcomes of the major domain like arts, program outcomes of science, program outcomes of agriculture, program outcomes of engineering and program outcomes of medicine like that. Program specific refers to specific branch of the major domain; programme specific outcomes in economics under arts, program specific outcomes of biology under natural sciences, program specific outcomes of computer engineering in engineering domain like that.

Course Outcomes (COs) are the statements of what students should know, understand and be able

to demonstrate after completion of a course. Course learning outcomes are specific and measurable statements that define the knowledge, skills, and attitudes-learners will demonstrate by the completion of a course. Another version of Course Outcomes relates to statements that describe significant and essential learning that learners have achieved and can reliably demonstrate at the end of a course.

Learning Outcomes (LOs) are written with an emphasis on a demonstrable action within a given time frame, such as by the end of the course. In academic parlance, course and paper are used interchangeably; however accrediting body like NAAC refers as course only. The LOs stand for identifying what the learners would be able to know and carry out at the end of a course. It is a mechanism to check the skills to endure knowledge, attitudes such as values and dispositions expected of a graduate of a program.

#### **Characteristics and Principles of OBE**

It is equally important to take cognizance of various facets of OBE with respect to its characteristics, principles and limitations of the same so that there will be better understanding of OBE and its derivatives. There are three basic characteristics of OBE and they include Practical, Fundamental, and Reflective. All the three are self explanatory; knowing how to do things stand for practical, what one does and why it is done referred to fundamental and reflective means is an art of connecting the dots of one's emotions, feelings, experiences, reactions and knowledge. Reflective is all about learning from experience and John Dewey (1910) had said that it is not mere experience but learning from reflecting on the experience matters the most in learning. According to Spady, OBE is based upon four principles: 1. Clarity of focus, 2. Designing down, 3. High expectations, 4. Expanded opportunities. It is possible to interpret the principles in terms of how teachers do focus by keeping in mind to make students know, understand and be able to do. Designing down is referred to achieving ultimate outcomes, success of not one single student but for everyone. High expectations and finally expanded opportunities go with provision of adequate support for accomplishment.

#### Discussion

It is common knowledge among academicians in higher educational in India that our education

system stands on three major pillars namely, curriculum content, knowledge delivery, and assessment. Prior to the advent of OBE, it was assumed that prevailing education system would automatically promote knowledge, skill and attitudes among students. It may be partially true, but the number of students who attained success may be miniscule. In this milieu, OBE assumes greater importance. A systematic approach to education with clear cut descriptions of concepts, principles and characteristics of OBE could make a sea of difference. Albeit, OBE started at the school level in the United States way back in 1990s, the rationale of pedagogy spreads across nations at various levels; primary, secondary and tertiary levels. All the offshoots of OBE, like program outcomes, program-specific outcomes, course outcomes and learning outcomes are formulated with strong scientific background. Traditional methods focused more on objective based, while the modern approach to education exemplifies outcome based. Former one is to do with the intended result and the latter one is for achieved results. Modern education system witnesses a paradigm shift from 'teacher-centric to student- centric. There is a compelling need to restructure the curriculum in line with OBE and higher education institutions in developed countries have had taken to OBE already. The developing nations like India should catch up; notwithstanding the fact there are universities in India which have taken to OBE, thanks to NAAC accreditation.

However, the OBE is not above criticisms; reportedly there are oppositions to testing, apprehension over extra burden on teachers and educational institutions. But the advantages outweigh the drawbacks, where the OBE stands for knowledge, skills and attitudes which are demonstrable upon completion of course/ program will be welcome by teachers, students, and parents as well. OBE is a continuous process and there exist a few key questions, which may warrant further research and empirical verifications. The questions include the following:

- 1. What exactly we expect students to possess or be able to render?
- 2. How can teachers help student to achieve?
- 3. What is the mechanism to confirm students' achievement?
- 4. *How do we close the loop for further development?*

#### Conclusion

Although not new, OBE is very much in the academic lime light in the recent years. Basically OBE is student-centric learning model, yet myriad stakeholders besides students, teachers, researchers, parents and academic experts realize the need to reinvigorate the philosophy of OBE, particularly in higher education institutions. Outcomes in terms of achievable results and demonstrable qualities of education shall motivate all the above mentioned stakeholders. Students may get enthused upon realizing one's ability in getting lucrative jobs on the one hand and teachers may join the mainstream to compete and progress in academic career. Accreditation process engages the metrics of program outcome and course outcome to do assessment of higher education institutions. As of now, awareness among faculty and students about OBE is scanty and therefore there is need for more sensitization among the academic community.

Note: The authors wish to thank Prof M Ravichandran, Registrar, Dhanalakshmi Srinivasan University for his constant support and encouragement in publishing this paper.

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# Assessment of Teachers through Career Advancement Scheme of University Grants Commission: Concerns and Disparities

#### Suresh Yenugu\*

The Union Government of India established 54 Central Universities that are funded by the Ministry of Education. These Universities have been established over a large span of time starting from the days India attained independence till a few years back. Though these Universities are deemed to be autonomous, an overarching body, namely, the University Grants Commission (UGC) is in place to prescribe academic and administrative guidelines. This body also oversees the functioning of State Government funded and private Universities in the country. As per the requirements and changing times, UGC issues guidelines / regulations on a periodic basis and amendments if any required are made depending on the necessity. The latest UGC regulations on "minimum qualifications for appointment of teachers and other academic staff in Universities and Colleges and measures for the maintenance of standards in higher education" were published in the Government of India Gazette on July 18, 2018 (1). Besides the procedures to be followed for direct recruitment of academic or administrative staff in Universities, these regulations also provide methodology to be adopted for promoting University teachers under the Career Advancement Scheme (CAS). Under CAS, Assistant Professors (APs) who are recruited at stage -1 are eligible for promotion to stage-2 four years after joining and then to stage -3 after serving in stage -2 for 5 years. An AP who serves in stage- 3 for three years are eligible to be considered for promotion to Associate Professor (AoP). Three years of service as AoP allows eligibility for promotion to Professor (Prof). Similarly, promotion to Senior Professor (S Prof) requires 10 years of service as Prof. The mandatory time duration in each stage or cadre to be eligible for promotion is considered as the 'assessment period'. Besides the duration of service required to be eligible for promotion, other eligibility and promotion criteria are to be fulfilled and the same are presented in table 1. The scores and academic credentials claimed by the applicant are to be verified by the Internal Quality Assurance

Cell (IQAC) and recommended by the screening cum evaluation committee for AP stage promotions and by the selection committee for promotions to AoP, Prof and S Prof.

It's been more than three years that these guidelines are implemented. While the CAS methodology and guidelines set by UGC appear to be clear, there have been a large number of concerns with this system. A periodic evaluation of the problems in implementation of these guidelines should be made. Some of the difficulties associated with the UGC regulations are presented herewith.

#### **Concerns and Disparities**

#### The Long Wait

An AP recruited at entry level is placed in Stage-1. APs have to put in 12 years of service to be promoted to AoPs. In this time frame, APs are eligible to be elevated to Stage-2 and Stage-3 after four and five years of service respectively. The financial benefits when elevated to the next level are marginal. This time frame appears to be too long. Despite good out put on the academic front, the stretched time period without a change of designation is a deterring aspect. Further, the salary structure of an AoP is far higher than the AP who is even at Stage 3. APs mostly belong to the younger generation and are set to settle in all spheres that include academics, research and personal. The financial gap between the two cadres have to be borne by the APs for a long time. The time period criteria to be eligible for promotion to AoP should be reduced to 9 years instead of the 12 years. This gives an opportunity for APs to feel an elevation of cadre in a reasonable time frame.

#### **Experienced Versus Fresh**

UGC regulations mandate that APs should be recruited only at stage 1. As per section 4.1 of UGC regulations, the qualifications for direct recruitment of APs is 55% marks in post-graduation, cleared NET /SLET or awarded PhD. In majority of instances, especially in the science streams, applicants would have undergone post-doctoral training. UGC

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guidelines allow consideration of past service for those who have served at equivalent positions in Indian or foreign institutions. However, if the service is in a foreign institution, it should match the equivalency of positions at Indian institutions. APs who had ample post-doctoral experience in reputed institutions stand to lose, while those who have worked even in mediocre institutions in the country as APs are allowed to take the benefit. Equivalency of post-doctoral training or an academic position acquired even in a reputed foreign institution cannot be weighed with that of service rendered in any Indian institute / University, since the on paper requirements are designed in such a way. The stringent UGC regulations down play the higher quality training received by an AP even in best of the best institutions in the world. A fresh doctorate and an amply experienced doctorate are recruited at the same level (stage 1). UGC regulations should allow a baseline advantage to all those APs who had prior post-doctoral experience. Those APs who had four or above years of post-doctoral experience substantiated by research publications be allowed to apply for movement to stage 2 immediately after joining. Alternatively, APs can be recruited directly at stage 2 or 3 depending on their prior post-doctoral experience. Thus, the sense of disappointment in an AP with ample experience can be dissuaded.

#### Selection Committee Assessment

Criteria enlisted in Tables 1 and 2 under Appendix-II of UGC regulations are to be followed and applied by the screening / selection committees for promoting teachers under CAS. In most cases, wherein the selection committee has to recommend promotions, the teacher should make a presentation and interact with the committee members. Though the teacher has fulfilled all the criteria for promotion, a general practice is to award marks basing on the presentation and interaction; and recommendations made. Such a provision of awarding marks by the selection committee is not available in UGC 2018 regulations. The primary role of selection committee is to assess the application and submit a recommendation as to whether the teacher is promoted or not. In many unfortunate instances, teachers are denied promotions despite fulfilling all the criteria and expectations. This sole authority of the selection committee should be reviewed. If selection committees wish to assess and record the assessment in quantitative terms, the minimum API score mandated by UGC regulations be translated to 75 marks and the selection committee

awards for the rest 25 marks. A minimum mark be awarded for attending the interview. Those who cross beyond a threshold (say >70 marks (obtained from API score and marking by selection committee)) should invariably be promoted. This prevents the possible biased assessment and protects the genuine and hardworking teachers.

#### Periodicity of CAS Promotions

UGC regulations insist that CAS promotions be conducted regularly and in a timely manner. Due to administrative reasons, CAS applications that require recommendations by the selection committee are generally conducted as and when there is a direct recruitment. Though the date of promotion to the next cadre and financial benefits will be retrospective, no matter the date on which the CAS assessment is conducted, the delay in conducting CAS promotions will result in teachers missing out many opportunities, especially when the eligibility criteria is dependent on the cadre of the teacher. The comforts of higher financial benefits that the teacher is expected to enjoy right from the day of eligibility are also delayed.

The problem becomes more complex when a teacher is not successful for promotion under the CAS. To cite an example, when a teacher who is eligible for promotion on 1st Jan 2020 is interviewed for promotion under CAS on 1stJan 2021 and is not promoted, the teacher has to appear for next assessment one year from the date of interview, which will be 1stJan2022. If the teacher had been assessed on time (1stJan 2020 in this case), even in case of failure, the next eligible date would have been 1stJan2021. The hardships caused due to delay in conducting CAS promotions by the administrative set up of the Universities are to be borne by the teacher. The more the delay, the harder the teacher loses career prospects. Further, in the above cited example, it is to be noted that the teacher's assessment period would have ended on 31st Dec, 2019 and whatever contributions made from 1<sup>st</sup> Jan, 2020 to 31st Dec, 2020 are not considered during the selection committee assessment done on Jan 1, 2021. Universities should condone the period of delay for conducting interview from the one year mandatory extension of assessment period. CAS promotions effected by selection committees should be delinked from direct recruitment. A workable solution for this would be to have separate selection committees for CAS promotions, the members would preferably be from the local institutions.

		F	Eligibility criter	·ia			Promotion	criteria
Stage of promotion	Assessment period	Degree required	Academic training*	Research publications	API re- quired	Doctoral student guidance	Expectation	Recom- mended by
AP stage 1 to AP Stage 2	4 / 5 years PhD / M.Phil holders.	PhD / M.Phil	1 Orientation course 1 Refresher course	One	40	Not required	Satisfactory or good grade in the APARs of the assessment period	Screening cum evaluation committee
AP stage 2 to AP Stage 3	5 years	Ph.D	Any two mentioned in the foot note.	Three	100	Not required	Satisfactory or good grade in the APARs of the assessment period	Screening cum evaluation committee
AP stage 3 to AoP	3 years	Ph.D	Any one mentioned in the foot note.	Seven, of which three should be in assessment period	90	At least one PhD awarded	a) Satisfactory or good grade in the APARs of at least in two of the years in the assessment period. b) research score of at least70	Selection committee as per UGC regulations
AoP to Prof	3 years	Ph.D	NIL	Ten, of which three in assessment period	120	At least one PhD awarded.	<ul> <li>a) Satisfactory or good grade in the APARs of at least in two of the years in the assessment period.</li> <li>b) research score of at least 110</li> </ul>	
Prof to S Prof	10 years	Ph.D	NIL	Ten in the assessment period		At least two PhD awarded.	Ten outstanding publications	Selection committee as per UGC regulations

#### Table 1. Criteria as per UGC Guidelines for Promotion of University Teachers under Career Advancement Scheme (CAS).

\*Academic training: Refresher Courses/Research Methodology/Workshops/ Syllabus Up-gradation Workshop/ Teaching-Learning-Evaluation/ Technology Programmes /Faculty Development Programme of at least two weeks duration.

#### **Teaching as a Major Component**

The primary objective of University teachers is to teach. Though UGC in its regulations for award of PhD degrees (University Grants Commission (Minimum Standards and Procedure for Award of M.PHIL./PH.D Degrees) Regulations, 2016)(2) indicated the maximum number of doctoral students a teacher can guide at a given point of time, there is no insistence that a teacher has to guide PhD students. Thus, teaching graduate and post graduate students becomes the primary mandate of University teachers. In the PBAS form designed by UGC, a teacher is expected to indicate "satisfactory" or "good" for teaching component depending on the number of teaching hours allotted versus number of hours taught. Similar rating is given for other student related activities. This is more of a one sided approach. Teaching for a specific number of hours alone does not indicate the quality of teaching. Feedback by the students on the teaching abilities of the teacher is crucial. The IQAC of Universities should design fool proof teacher assessment forms and develop a formula to give a score to the teacher depending on student feedback, teacher's self-assessment and the teaching methodology adopted by the teacher. A minimum score should be gained by the teacher every semester. In case a teacher scores below the minimum score in a semester, the teacher should be made to undergo training programs related to enhancing the quality of teaching.

The quality of teaching takes a back seat during CAS assessments. The focus is more on research contribution (publications, grant generation and patents). Naturally teachers put more of their efforts and energies in research output rather than teaching. This is a dangerous trend. Until the quality of teaching is considered as a major determinant in promotions, those minor numbers who have a flair for teaching and are not really bothered for promotions will only deliver the goods; while majority may focus on research contributions and teaching as a routine exercise. In situations, where the mandate of Universities is both teaching and research, differential PBAS forms be developed so as to not miss out the teachers who have excelled in teaching and not in research.

#### **Direct Recruitment versus CAS Promotions**

Vacancies that arise are filled by Universities following the UGC regulations. In service teachers are also eligible to compete for higher positions with external applicants. In the CAS mode: an AP has to put in 12 years of experience to be promoted to AoP, 15 years to be promoted to Prof and 25 years to be promoted to S Prof. However, as per UGC regulations, for direct recruitment, the post PhD experience criteria is 8 years, 10 years and 10 years (as Prof) for AoP. Prof and S Prof respectively. An in service teacher who chooses to take the CAS mode is put at a severe disadvantage, since external applicants need less experience to be appointed at higher positions. Further, applicants who are working in reputed foreign institutions naturally fare better in research output (publications) than those of University teachers in India due to huge disparity in infrastructure, availability of funds and other logistics. External applicants from research institutions have no teaching experience. Sill external applicants are the preferred choice in direct recruitment. An equal level playing ground should be designed such that the working conditions, teaching and research contributions and administrative and extra academic responsibilities of in service teachers are factored in when they compete with external applicants. The disparity in the requirement of post-doctoral experience / service between external applicants and in service applicants for promotion to higher positions be avoided. An AP should be eligible for promotion to AoP and Prof after 8and 10 years of service respectively under the CAS mode also.

#### **Role of IQAC**

As per UGC regulations all Universities should establish IQAC which "shall act as the documentation and record-keeping Cell for the institution, including assistance in the development of Assessment Criteria and Methodology Proforma based on these Regulations. The IQAC may also introduce, wherever feasible, the student feedback system as per the National Assessment and Accrediation Council (NAAC) guidelines on institutional parameters without incorporating the component of the students' assessment of individual teachers in the Assessment Criteria and Methodology Proforma". It appears that majority of the Central Universities have IQACs, but their details are not predominantly visible on their websites. The contribution of IOACs is very crucial in the progress of the teacher. As shown in table 1, among the expectations for promotion, a teacher has to achieve good grade in the Annual Performance Appraisal Reports (APARs). Mandatory requirement of submission of APARs by teachers should be implemented. Thorough evaluation of the claims made in the reports be executed and short comings be notified to teachers along with guidance to overcome these. Frequent seminars / courses should be organized by IQACs for teachers to enhance their teaching skills with changing times and expectations from students. The best performing teachers, especially with reference to quality of teaching be recognized and awards / incentives. Besides the academic quality, IQACs should extend their involvement in the quality of life of teachers, quality of class room infrastructure and quality of administrative staff services to ensure right ambience for teaching; and assess how these factors affect the teaching output.

<sup>(</sup>contd. on pg. 26

# Should the Nation Go Ahead with Introduction of 4 Year Integrated Teacher Education Programme in a Multidisciplinary Environment?

#### Sunil Behari Mohanty\*

Integrated Teacher Training Programme was introduced in the country in early 1960s, by a private institution- Kurukshetra College. In sixties, as there was food shortage in our country, U.S. government supplied wheat to India and the cost of wheat was to be utilised in Indian development programmes. Regional Colleges (now Institutes) of Education of NCERT, were established under this assistance scheme. No doubt these colleges started four-year integrated courses which was US model, in addition to one year B.Ed. course which was UK model. These four Regional Colleges of Education in Karnataka, Madhya Pradesh, Odisha, and Rajasthan states could not make these state governments to adopt four-year integrated courses, although these colleges had posts of Field Advisers to maintain liaison with state governments. The state government might have been influenced by the nonacceptance of four-year integrated courses as an ideal programme by the Kothari Commission of 1966.

#### Possible Reasons for Non-Acceptance of Four-Year Integrated Courses of Regional Colleges (Institutes) of Education of NCERT by the State Governments May be:

- 1. NCERT colleges, in addition to four-year integrated courses had one year B.Ed. courses, for which state governments might have continued with their one-year B.Ed. courses and not ventured for integrated courses. However, a teachers' training college at Pondicherry had both these courses. Four-year integrated BA; B.Ed. courses were also in a few colleges under Shivaji University, Kolhapur, Maharashtra.
- Due to recent stress given by NCTE, as per annual report 2019-20, on March 31, 2020, there were 724 B.A., B.Ed. / B.Sc., B.Ed. recognised 4-year integrated courses in the country. Highest number was in in Rajasthan 424, followed by 107 Madhya Pradesh, 44 Uttar Pradesh, 32 Punjab, 31 Tamil Nadu, 20 Haryana, 9 West Bengal, 8 Gujarat,

7 each in Karnataka; Odisha, 5 each in Bihar; Maharashtra, 4 each in Arunachal Pradesh; Telangana, 3 each in Chhattisgarh; Jharkhand, 2 each in A&N Island, Assam, Chandigarh; Uttarakhand, and 1 each in Himachal Pradesh.; Kerala, Tripura; Puducherry. There was no such course in Andhra Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Delhi. This information indicates wide gap (0 to 424) among states in accepting four-year integrated teacher training course. In such a situation nation may need to reconsider NEP-2020 statement:

"5.22. Recognizing that the teachers will require training in high-quality content as well as pedagogy, teacher education will gradually be moved by 2030 into multidisciplinary colleges and universities" (MHRD 2020, p. 23)

5.23. By 2030, the minimum degree qualification for teaching will be a 4-year integrated B.Ed. degree that teaches a range of knowledge content and pedagogy and includes strong practicum training in the form of student-teaching at local schools". (MHRD 2020,p. 23)

- 3. As most of the states are having either no or 1 to 9 single digits four-year integrated teacher training course of NCERT pattern, the central government may shelve its plan for ITEP and avoid possible huge wastage.
- 4. Agencies involved in policy formulation may need to be asked to carry out comparative studies of performance of products of one year B.Ed., two-year B.Ed. and four-year integrated courses and the nation may need to wait for the result of this study before going ahead with ITEP. Nation may need to ask NCERT to conduct such a study on the products of these three types of courses of its Regional Institutes of Education.
- 5. States might have viewed integrated teacher training courses in NCERT colleges as experi-

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mental ones as NCERT had also started some courses such as B.Ed. (Elementary), M.Ed. (Elementary), etc and discontinued them after a few years.

- Four-year integrated courses are more expensive 6. to provide in comparison to one year B. Ed. courses. The annual expenditure for a NCERT Regional College could be thirty times more than the expenditure for a state government training college. Cost factor was also one of the reasons of non-approval for nationalisation of this type of course by Kothari Commission (Kothari 1966, Art.4.18 and 4.19, p. 121). After discussing about integrated course, the Commission concluded, "We feel that it would be wrong to place an undue emphasis on such marginal experiments and that, from the point of view of raising standards in teacher education, it would be better to concentrate on improving the professional one-year course following the first or the second degree."
- 7. Perhaps presence of expert from the US in the policy formulation process might have tilted towards four-year integrated course, although the US school education system is considered inferior as in the latest PISA of 2018 (OECD 2019), the US did not find a place among list of top 10 nations in science and mathematics, even if many top-ranking universities were in the same country.
- 8. Teachers for various content subjects in an integrated course might not have adequate workload.
- 9. A number of four-year integrated course products may not join teaching as they the age of 18, they might have not chosen their career. In real situation many such students leave half way, and many do not become teacher, but join other profession. This may not be the case for graduates (21-yearold), who join one year B.Ed., after exhausting other options. May be the Central government conduct a follow up study of products of four-year integrated teacher education courses, to test this hypothesis,
- 10. Faculty members of Regional Colleges of Education without even a B.Ed. degree could supervise teaching of school students, which might have been considered improper by the state government teacher training experts as in

the state government colleges, supervision was done by faculty members who had generally a B.Ed. and a M.Ed. degree.

- 11. Regional Colleges of Education had professors of education and principals who did not have a B.Ed. degree, not to speak of M.Ed. or M.A. (Education) degree – the practice even found today Regional Colleges of Education did not have morning assemblies-prayer classes, which is a must for a school, and one year B.Ed. programmes of traditional teacher training colleges trained their teacher training in this spiritual orientation.
- 12. Regional Colleges of Education did not have adequate co-curricular activities-such as performance in drama, one-act plays, etc., which are essential for a school, and one year B.Ed. programmes of traditional teacher training colleges trained their teacher training in these activities which facilitate socio emotional learning. Of course, training of teachers in strategies/skills of conducting programmes for spiritual development and socio-emotional development is not found in current policy document.
- 13. Training colleges required small campuses, whereas regional colleges had large sized campuses.
- 14. Faculty members of NCERT Regional colleges do not have holidays as available in case of university departments and colleges of education and they get earned leave as applicable to office employees.
- 15. Faculty members of NCERT Regional colleges get TA and DA for carrying out supervision of student teaching in schools in other cities and even in other states.
- 16. Self-learning opportunities provided by the Regional Institutes of Education are huge in comparison to such facilities provided in state government teacher training institutions, as these institutions had for many years libraries remaining open for 12 hours a day from 8AM to 8PM, large computer labs, and traditional audio-visual equipment for use in classroom teaching.

#### Exploring Possibility of Proposed Four Year Integrated Teacher Education Programme (ITEP) for All Levels of Teachers

The NEP-2020 stated,

"15.5. The 4-year integrated B.Ed. offered by such multidisciplinary HEIs will, by 2030, become the minimal degree qualification for school teachers. The 4-year integrated B.Ed. will be a dual-major holistic bachelor's degree, in Education as well as a specialized subject such as a language, history, music, mathematics, computer science, chemistry, economics, art, physical education, etc. Beyond the teaching of cutting-edge pedagogy, the teacher education will include grounding in sociology, history, science, psychology, early childhood care and education, foundational literacy and numeracy, knowledge of India and its values/ethos/art/ traditions, and more." (pp.42-43).

In 2012, Planning Commission (2012, p.83) stated, "Diploma in Education programme for teachers for the elementary stage currently imparted by DIETs and other independent institutes should be progressively upgraded to degree programmes and these institutions could be upgraded to undergraduate colleges affiliated to the universities." Although above strategy proposed by the Planning Commission has not been implemented due to possible extra expenditure to be incurred in giving more salary to higher qualified teachers, a few DIETs in Assam, Gujarat and Odisha have been providing B. Ed. courses, but these courses are meant for secondary school teaching.

As there is no mention in NEP- 2020 about Diploma /Certificate courses for teachers at preprimary and elementary school stages, and as the current document on new type of four-year integrated courses mention about components from pr-primary and elementary, there is a feeling that such a course may cover all stages. If that is the case, there may be following barriers:

1. There is the model of huge wastage of central government funds in giving funds to state governments in late 1980s to upgrade selected teacher training institutions as Institute of Advanced Study in Education (IASE) and College

of Teacher Education (CTE), with an undertaking from State governments that they would continue to maintain the teacher posts, supported by the central government for five years. An IASE had 3 professors, 6 readers and 16 lecturers to conduct Ph.D., M. Phil., one year M.Ed. and one year B.Ed. programmes and also to conduct inservice programmes for school teachers. It was learnt that the oldest IASE of Odisha State had on 26thDecember 2021 had only 1 Associate professor as principal and six lecturers, although duration of M.Ed. and B. Ed. has doubled. During a visit to a CTE in Gujarat state, which had been declared as a College with Potential for Excellence by the UGC, the principal stated that massive amounts meant for conducting programme were lying unutilised due to shortage of faculty members. On that day, the college had a principal and only one regular teacher and five teachers on contract basis. Huge material resources including generous sized hostels for in-service teacher training in many IASEs and CTEs are remaining unutilised and having a look of a ruin, as the state governments have failed to muster funds for in-service programmes for secondary teachers. The current officials of the ministry of education may have a look at the review reports of this scheme brought out earlier by their own ministry, before proceeding for a new central government sponsored scheme.

- 2. Such a course cannot do justice as Diploma courses for pre-school / elementary teaching covers methods of teaching large numbers of subjects taught at these stages, which may not be difficult to be done through integrated teacher training courses may not be able to do.
- Teacher salary is related to general and 3. professional study. A Diploma course product is expected to have a higher secondary pass certificate and such qualified teacher gets one third of the salary of a trained graduate teacher. Hence, having four-year integrated B.Ed. as qualification for elementary/ pre-school teaching will increase the salary three times. Can the States go for such an investment? Answer is a Big NO for many states. For many years, the writer's village school has only four teachers for eight classes. Of course, the nation had for one and a half decade, two-year B.Ed. degree holders, who got the same salary as one year B.Ed. degree holders.

4 NCTE document mentions one reason for introduction of new integrated teacher education programme (ITEP) is to equalise the number of years one individual takes to become teacher by joining a teacher training course for an integrated teacher training degree (4 years after +2) or by getting a two-year B.Ed. after getting a general degree (5 years after plus two). This anomaly had been pointed out at the time of replacement of one year B.Ed. by two-year B.Ed. by NCTE (Mohanty 2016). It was ignored. Fortunately, NEP 2020 has now proposed one year B. Ed. course for post graduate degree or proposed four-year general degree holders. Can one say, going back to one year B.Ed. is like Muhammad Tughlaq's Delhi to Daulatabad and back. Of course, NEP 2020 had also suggested four-year degree course, which a few years ago introduced by University of Delhi had to be replaced by three-year degree course. NEP 2020 stated.

"The 2-year B.Ed. programmes will also be offered, by the same multidisciplinary institutions offering the 4-year integrated B.Ed. and will be intended only for those who have already obtained Bachelor's Degrees in other specialized subjects. These B.Ed. programmes may also be suitably adapted as 1-year B.Ed. programmes and will be offered only to those who have completed the equivalent of 4-year multidisciplinary Bachelor's Degrees or who have obtained a Master's degree in a specialty and wish to become a subject teacher in that specialty. All such B.Ed. degrees would be offered only by accredited multidisciplinary higher education institutions offering 4-year integrated B.Ed. programmes" (MHRD 2020, p. 23, Art. 5.23)

"The HEI offering the 4-year integrated B.Ed. may also run a 2-year B.Ed., for students who have already received a Bachelor's degree in a specialized subject. A 1-year B.Ed. may also be offered for candidates who have received a 4-year undergraduate degree in a specialized subject." (Art 15.5, p.43).

Policy has not favoured one year B.Ed. course in stand-alone teacher training institutions, National government since 1987/88 has been giving huge amount of funds to state governments to have IASEs and CTEs for improving secondary school teaching. A large number of these institutions do not have even one third of the number of teachers to be maintained by them for which, in many such institutions, admissions have been stopped by NCTE.No doubt concerned state governments failing to convert these institutions to multidisciplinary will have to close them - huge wastage of resources. In view of the discussions made above, there is a need for continuation of standalone teacher training colleges. Some of the 1986/1992 policy recommendations were not implemented by the then government and subsequent governments. Similarly, all strategies mentioned in NEP 2020 need not be binding for the present government.

5. NEP-2020 states, "Moreover, all standalone TEIs will be required to convert to multidisciplinary institutions by 2030, since they will have to offer the 4-year integrated teacher preparation programme." (MHRD 2020, p.42). It is not clear that the policy. According to All India Survey of Higher Education Survey 2019-20, there are 3,849 stand-alone institutions offering teacher education programmes (Ministry of Education 2020, Table 9). In addition to these higher education institutions, there are around 8,000 standalone institutions offering teacher training courses at pre-primary and elementary general teacher training as NCTE Annual Report 2019-20 mentions recognised 11,359 D. El. Ed., 6 D. El. Ed. (ODL) and 204 DPSE (pre-primary) Institutions university courses. including managed teacher education institutions pay a monthly salary of around rupees ten thousand to a lecturer, as found from their websites. As number of such teachers currently employed in stand-alone institutions offering teacher education programmes is exceptionally large and as majority of them are in private sector or as self-financed programmes of universities and state governments, when these stand- alone institutions will be derecognised, the nation may face huge unrest due to loss of employment of these teachers. As government has been allowing many private schools to have teachers with a small salary, there should not be any problem in allowing stand-aloneinstitutions to continue to do so. Government should ensure that its examining bodies-universities, councils, and boards which conduct several types of teacher

training examinations conduct their examinations properly, so that non-performing teacher training institutions do not get students, as had happened in case of one university in Gujarat. Example should start with the teacher education courses offered by the central universities of the central government.

Since the nation has introduced teacher eligibility 6. test, if teaching practical ca be introduced as part of these tests, much of the evils found in case teacher training programmes found in case of departments of education in central, state, and private universities and in general colleges and in standalone teacher training institutions including IASEs, CTEs, DIETs and BITEs can be taken care of. Again, there is the example of one university in Gujarat, where due to large scale failures in B. Ed. examinations, the private colleges affiliated to that university did not have students in the following academic session for which they themselves got closed.

#### Conclusion

In conclusions, it may be stated that there is no need to have an experiment on ITEP in 50 multidisciplinary institutions. If the central government has funds to spend, it may establish (a) its own autonomous teacher training institution in each State and union territory and have infrastructure similar to existing five regional institutions and consider these as autonomous teacher degree awarding teacher training institutions (b) establish a Central University for Teacher Education, (c) establish a National Mission on Teachers and Teaching as suggested in the Twelfth Five Year Plan document (Planning Commission 2012, p. 85). In an E-mail sent on January 2, 2022 to the author, a veteran expert in teacher educationist and ex-professor of NCERT, Prof L.C. Singh stated. "I am of the view that one year standalone B. Ed. programme run by Colleges of Education, CTEs and IASEs in the Universities is most viable, economical producing effective quality teachers for secondary schools" It may also consider allowing standalone teacher training institutions to continue with one year B.Ed. programme that have been recommended by the policy for PG degree holders and proposed fouryear degree holders in multidisciplinary institutions.

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### **A Bequest of Indian Women English Writers**

#### Rajni Vashist\*

"Wherever you go becomes part of you somehow" as rightly said by Anita Desai.

In the world of literature, female authors have made major contribution in raising significant questions and bringing about change in the society. Many exceptional and extraordinary women brought changes through their writings and creative skills. Writing by women has given a new dimension to the Indian literature. Indian Women English literature writers are from all walks and regions with a blend of diasporic Indian women writers (who are born in India settled or migrated abroad).

The Indian literature has gifted several talented women writers as Anita Desai, Arundhati Roy, Shashi Deshpande, Shobha De, Sudha Murthy, Anita Nair, Jhumpa Lahri, Chitra Banerjee, Diva Karuni, Kiran Desai, Bharati Mukherjee, Kamala Markandya, Ruth Prawer Jhambvala, Geeta Mehta, Rama Mehta, Manju Kapoor, Toru Dutt and Many more. Indian English literature has developed over a period of time and writing in English did not start in a day. It took many years, Indian women novelists and writers have given a new dimension to it.

The journey of Indian English women writers begins in 1800 century with Aru and Toru Dutt from Dutt Family. Toru Dutt a translator, essayist, novelists and poetess was daughter of Govind Chunder Dutt. In her life she published A Sheep Gleaned in French fields (1876) which was translation of 73 french poems. Her other works were published by her father after her death in 1877.BIANCA the young Spanish Maiden in English, DE Journal De Made Moiselle d'Arverse in French and Ancient Ballads includes Our Casurana Tree, Sita, Savitri, Prehlad and Baugmare. She wrote essay in Bengal Magazine on Henry Vivian Derozio. The only early nineteenth century Indian English women writes Toru Dutt was suceedded by later nineteen century novelist Karubhai Satthianadaan (1862-1894), her two novels Kamal (Hindu Life 1894) and Saguna (A native Chirsitan 1893) depicted two different culture and religion based characters life.

The Nightiangle of India Sarojini Naidu's works published by her father in 1896-The poems of Miss Chattopadhayay. Her reputation rests on her volumes published subsequently-The Golden Threshold (1905), The Bird Time's Songs of life, Death and Spring (1912) The Broken Wing: Song of Love, Death and Destiny (1915-1916). The feather of dawn written in 1920 published in 1961. She wrote sonnets on Gandhi "The Lotus". The daughter of a parsee converted to christanity

Coronelia Sorabji (1866-1954). She studied law but could not practice it till 1923. Her works Love and Life behind the Purdah (1901), Sun Babies: Studies in the child life of India(1904) and Sun Babies (1920), Shubhala; A Child Mother (1920), The Purdah Nashin (1917), Biography of her sister Susi Sorabji: A Christian Parsee education of Women in India (1935),Therefore (1929), India Calling (1934) and India recalled (1936).

Born in a Elite muslim family Attia Hussian (1913-1998). She was influenced with nationalist movement and Progressive writers group.She migrated to England in 1947. Her first work was Phonexis Fled published in 1953. Her only novel Sunlight on a Broken Wall was published in 1961. Some other names of women writers-Venu Chiltale's In Transit (1951), Zenenuth Futehally's Zohra (1951) and Mirnalini Sarabai's This Alone is Truth (1952) were portrayal of strong intellectual women writers.

Nayantara Sehgal born in 1927 daughter of Vijay laxmi Pandit (Nehru's sister) wrote on aristocratic people hypocricy and shallowness. She concerned for Indian Heritage. Her works are A Time To Be Happy(1958), Riche Likes Us (1985) won Sahitya Akedemi Award, Plans for departure (1985), Mistaken Identity(1986) and Relationships (1994).

Kamala Markandya (1924-2004) was educated in Madras, married an English man and settled in Britain. The conflict of tradition, modern east and west always reflected in her works. She was more comfortable in describing her own class. Her works in chronological order-Nector in Sieve (1954), Some Inner Fury (1955), A silence Desire (1960), Possession (1963), A Handful of Rice (1966), The

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Coffer's Dam (1969), The Nowhere Man (1972), Two Virgins (1973), The Golden Honeycomb (1977) and Pleasant City (1988).

Anita Desai famous novelist, daughter of German mother and Bengali businessman Mazumadar. She married to Aswin Desai and winner of Sahitya Akedemi Award. Her 3 works were short listed for Booker's prize. Her works in chronology are: Cry The Peacock (1963), Voices of the City (1965), Bye Bye Black Bird (1971), The Peacock Garden -----(1974), Where Shall We go this Summer (1975),Cat on a Houseboat (1976), In the Mountain (1977), Games At Twilight (1978), Clear Light of The Day (1980), Village by the sea (1982), In Custody (1980), Baurgartends Bombay (1988), Journey To Ithacca (1995), Fasting Feasting (1999), Diamond Dust and other stories (2000), The Zig Zag Way (2004) and The Artist Disappearance (2011).

Ruth Prawer Jhabvala born in 1927 and migrated to England. She married an Indian Architect. She died in 2013.Her works-To Whom She will, The Nature of Passion, The House Holder, Get Ready for the battle, Like Birds Like Wishes, The Backward Place, Heat and Dust, How I become a Holy Mother, Out of India, Three Continents, And At The End of Century.

Kamala Das (1934-2009) was daughter of famous malyalam poet Amma and Editor V.K. Nair. She married Madhav Das at the age of 15.After her husband's death she converted to Islam. Her works starts from her fam0us novel Alphabet of Lust (1976), My Story (1976), A Doll for Child Prostitution (1977), Padmawati the Harlot and other stories (1992), Her poems are The Sirens(1964),Summer in Calcutta (1965), Descendants (1969), Old Playhouse and Other poems (1973), The Stranger Time (1977), Collected Poems (1984), Tonight with Savages Rite (1979), The Annamali Poems (1985), Only Soul Know How to Sing (1998), My Mother At Sixty Six (1999) and Yaa Allah (2001).

Eunice De Souza (1940-2017) belongs to Goan Christian community. She studied in Bombay and US. She worked as lecturer in college in Bombay. Her works from her poetry: Fix (1979), Women in Dutch Painting (1988), Way of Belonging (1990), A Spelling Guide to Woman(1990) selected Guide to woman (1994), As Necklace of walls (2009) and A Learner from the Almond Leaf (2016) She wrote two novels Danger Lok (2001) and Dev and Simran (2003) She edited Nine Indian women poets (1997).

Bharati Mukherjee born in 1940 married an American and she called herself American writer not Indian expaitriate. Her novel trace the spilt in the diasporic subject. She died in 2017. Her works are: The Tiger's daughter (1973), The Wife (1976), Darkness (1985), The Middleclass and Other stories (1988), Jasmine (1989) and The Holder of The World (1993).

A Canadian, novelist actress and script writer Meera Syal was born in Britain in 1961.Her works are screenplays- Bhaji On The Beach(1993),Anita and Me(2002),Stage-One of Us (1983),The Oppressed Minorities Big Fan Show(1992),Goodness Gracious He(1999),Bombay Dreams(2002),Novels-Anita and Me (1996),Life isn't Ha HaHeeHee (1999).The House of Hidden Mothers (2015) Other women writes Shama Fatehally(1952-2004) was a novelist and short stories writer.Her works-Tara Lane(1993) and Reaching Bombay (2002),Silvers of a Mirror, Glimses of ghazals, The Right Words and The Tunnel(2013).

Imtaz Dhankara British poet, artist and film maker. Her works Purdan (1989), Postcards from God (1997), I speak for the Devil (2001), The Terrorist at my table (2006), Leaving Finger Prints (2009) and Over The Moon (2014).

Moving Forward to Indian English Women Writers who won prizes and established their name in literature is Shashi Deshpande born in 1838 in Karnataka and worked as a lecturer. She deals in women in urban and middle class life in her novels. Her works are The Dark holds no Terror(1980), Roots and Shadow(1983), That Long Silence(1988),Small remedies(2000),and The Binding Wire(1992).

Gita Hariharan born in 1954 an Indian writer based in New Delhi. Her works are Thousand Faces of Night (1992) won commonwealth prize, The Art of Dying (1993), Ghost of Vasu Master (1994), In Times of Siege (2003). Fugitive Histories (2009) and I Have become the Tide (2019).

Arundhati Roy born in 1960 a trained Architect and also written filmscripts. Her works are God of Small Things (1997) a novel wom Booker's Prize it is her semi biography, The Ministry of Utmost Happiness, The Algebra of Infinite Justice (2002) and War Talk (2003). Kiran Desai born in 1971 and daughter of famous write Anita Desai. Her famous works are- Hullabalo in Guava Orchard (1998), Inheritance of Loss (2006) won Booker's Prize.

Anita Nair born in 1966 an Indian novelist. Her works are The Better Man(1999),Ladies Coupe (2001), Mistress (2005), Lessons in forgetting (2010), Idrs: Keeper of The Light (2014).

Jhumpa Lahriborn in 1967 is an American Indian writer born in India migrated to England now lives in Rome. Her works are Interpreter of Maldives(1999) won Pultizer award, The Name sake (2003), Uncustomed Earth (2008) and The Low Land (2008).

SudhaMurthybornin1950isanIndianEngineering teacher and Kannada and English author. Her works The Mother I never knew, Three Thousand Stiches ,the Man from the egg, Here there, Everywhere, Magic of the Lost Temple. How I taught my grandmother to Read, Old Man and his God, Dollar Babu, The Magic Drum, Wise and Otherwise. Mahashewta, The Day I stopped drinking milk and Serpent's Revenge.

Shobha De born in 1948 is an Indian columnist and novelist. She is best known for her depiction of Socialities and sex in her works of fiction. Her works are Sisters (1992), Starry Nights (1991), Socialite Evenings (1989), Stange Obessesion (1992), Spouse the truth about marriage (2004), Never a Dull De (2014), Surviving Man (1997), The Shobha De Omnibus(1995), Snapshots (1995), Speedpost(1999) and Second Thought(1996).

Chitra Banerjee born in 1956 is an Indian American author, poet and professor at University of Houston. Her works – Arranged Marriage (1995), The Mistress of Spices (1997), Sisters of My Heart (1999), The Unknown Errors of our Lives (2001), The Vine of Desires (2002), Queen of Dreams (2004), The Lives of Strangers (2007). The Palace of Illusions: Oleander Girl (2013), Before we visit the Goddess (2016), The Forest of Enchantments (2010), For Young Adults and Children-Neeka: Vicotry Song(2002).

Preeti Shenoy is an Indian Writer born in 1971. Her works are The Secret Wish List (2012), Tea for Two A Piece (2012), The One you cannot have (2013), It Happens for a reason (2014), Why we love the way we (2015), It's all in the planet (2016), A hindred Little flames (2017), Love A Little Stronger (2018), Thirty four Bubblegum an Candies (2019), Woke Up; Life is calling (2019) AND Life is What you make it(2019).

Malathi Rao was born (April 1930) in Bangalore, Karnataka to Chennagiri Padmanabha Rao and Smt. Padmavathi. She was an English Lecturer in Vijaya College, Bangalore and the legendary Prof. V.T. Srinivasan was principal and Head of the department in the college. Rao spent a major part of her teaching career in Delhi. She taught English literature at Miranda House, Delhi University. Malathi Rao has written three novels, three collections of short stories and authored several newspaper articles. "The Bridge," "...And in Benares flows the Ganga," and "Come for a Coffee... Please," are among her wellknown works. She rose to prominence with her novel 'Disorderly Women' published in 2007. She won the SahityaAkademi Award presented to by the Hon. President of India.

Rupa Bajwa (born 1976) recipient of Grinzane Cavour Prize (2005), the commonwealth award (2005)and India's Sahitya Akademi Award (2006) for her novel The Sari Shop is an Indian writer who lives and works in Amritsar, Punjab as well as spending time in various other Indian cities and towns. Her second novel, Tell Me a Story, was released in April 2012. It was met with extreme reactions. It received critical appreciation from some quarters, at the same time creating controversy among the literary circles in New Delhi, since a part of this novel lampooned these very people.

Meenakshi Mukherjee (died 16<sup>th</sup> September, 2009, aged 72) Her book, "An Indian for all seasons", a biography of R.C. Dutt historian published by Penguin. She received Sahitya Akademi Award for her book The Perishable Empire.She taught English Literature and Critical theory at a number of colleges in Pune, Delhi and University of Hyderabad, Her last and longest spell was as Professor of English in JNU New Delhi.

Sunetra Gupta (born March, 1965) is a British-Indian infectious disease epidemiologist and a professor of theoretical epidemiology at The Department of Zoology, University of Oxford. She has performed research on the transmission dynamics of various infectious diseases, including Malaria, infulenza and COVID -19 has received the Scientific Medal of the Zoological Society of London and the Rosalind Franklin Award of the Royal Society. She wrote her first works of fiction in Bengali. She was a translator of the poetry of Rabindranath Tagore. She has published several novels in English. In October 2012 her fifth novel, So Good in Black, was longlisted for the DSC Prize for South Asian Literature. Her novels have been awarded the Sahitya Akademi Award, the Southern Arts Literature Prize, shortlisted for the Crossword Award, and longlisted for the Orange Prize.

Temsüla Ao (born October 1945) is an Indian poet, short story writer and ethnographer. She is a retired Professor of English in (NEHU) North Eastern Hill University, where she has taught since 1975.She served as the Director of North East Zone Culture, Dimapur between 1992 and 1997 on deputation from NEHUIn 2013, she received Sahitya Akademi Award for her short story collection Laburnum for My Head .She has published five poetic works.

- Songs that Tell (1988),
- Songs that Try to Say (1992),
- Songs of Many Moods (1995),
- Songs from Here and There (2003),
- Songs From The Other Life (2007).

Her first two poetry collections were published from Writers Workshop Calcutta. The third poetry collection was published by Kohima Sahitya Sabha and the fourth was published by NEHU and the last one was by Grasswork Books, Pune. TemsülaAo has published two short story collections. These Hills Called Home: Stories from the War Zone, Zubaan and Laburnum for my Head by Penguin (2009). The former short story collection consists of ten short stories and deals with insurgency in Nagaland fired by right to self-determination of the Naga people.

Mamang Dai is an Indian poet, novelist and journalist based Itanagar Arunchal Pradesh. She received Sahitya Akademi Award in 2017 for her novel The Black Hill. Her non-fictional works includes Arunachal Pradesh: The *Hidden Land* (2003) and *Mountain Harvest: The Food* of Arunachal (2004). The Sky Queen and Once Upon a Moontime (2003) are illustrated folklore texts by her. She published her first novel, The Legends of Pensam, in 2006, which was followed by Stupid Cupid (2008) and The Black Hill (2014). River Poems (2004), The Balm of Time (2008) Hambreelmai's Loom (2014), Midsummer Survival Lyrics (2014) are her poetry collection. The balm of time was also published in Assamese as El Balsamo Del YTiempo.

The Sahitya Akedemi award is the second highest literary honour in India, it is conferred annually on writers of the most outstanding books of literary published in any of the major Indian languages. Sahitya Akedemi Award winners woman writers are Anita Desai for Fire on The Mountain in 1978. Inside The Haveli by Rama Mehta in 1979, Collected poems of Kamala Das in 1985, Rich Like US by Nayantara Sehgal in 1986, That Long Silence by Shashi Deshpande in 1990, Sunetra Gupta for Memories of Rain in 1996, Maltani Rao for Disorderly Women in 2007, Rupa Bajwa in 2006 for The Sari Shop, Arundhati Roy for The Algebra of Infinite Justice in 2005, Meenakshi Mukherjee for The Perishable Empire in 2002, Temsula Ao for Laburnum For My Head in 2013, Mamang Dai fro The Black Hill in 2017.

Women writers proclaimed from all professions to writings in literature. Female writers started writing in English begin with Toru Dutt and Karubhai when they were not even allowed formal education and formal rights in Indian society. From that Era till present female writers have completed a great journey with vivid colours and spectrum of writing from all sections, regions, religions and parts of India and abroad and their individual identity in Indian English Literature.

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# An Empirical Study on Quality Related Issues in Higher Education<sup>#</sup>

#### Anuradha Sekhri\*

The fundamental problems facing higher education in the country include inadequate infrastructure and facilities, large vacancies in faculty positions, low student enrollment rate, outdated teaching methods, declining research standards, unmotivated students, overcrowded classrooms and widespread geographic, ethnic and socio-economic imbalances.

There is a need for bringing qualitative improvement in the sector of higher education in the country. The government must promote collaboration between Indian higher education institutes and tops International institutes and also generates linkage between national research laboratories and research centres of the top institutions for better quality and collaborative research.

Higher education plays a remarkable role in the progress of the society and development of the economy. Besides, its central role is to:

- impact, create, and disseminate knowledge;
- foster creativity, critical thinking, and promote analytical abilities in order infuse life in teaching and learning;
- enable students to make independent and informed decisions, and become responsible citizens of the society;
- Develop human resources for the promotion of social and economic growth and the creation of a knowledge society.

Given the massive demand for higher education from all the strata of society, other pressures are causing concern concerning accessibility, equity, quality and resources, as enumerated by Sudarshan and Subramanyan (2012).

The higher education system has to face a great variety of challenges due to rapid advancement. Therefore, rigorous training of individuals is required in the interdisciplinary field (Anderson, 2012). Higher levels of discipline and other contextual expertise are necessary for university teaching as it is a scholarly activity that draws o extensive professional skills and practices. A shared understanding is required for an effective university teacher (Devlin, & Samarawickrema, 2010).

#### **Challenges of Higher Education**

Throughout the world, though higher education is growing at a rapid rate, it is constantly under pressure to cater to the needs of the society due to:

- the explosion of knowledge, information and communication;
- population explosion;
- aspirations of the youth;
- focus on capacity building;
- This calls for continuous up-gradation of the skills for global interdependence, which necessitates learning throughout life;
- another challenge that is reflected in higher education is the departure of the students to the USA, Canada, and now to Singapore, Australia, etc., for higher studies, and;
- Opening of campuses in India by the foreign Universities that offer much sought after courses by the youth.

In view of the massive demand for higher education from all the strata of society, other pressures are causing concern with respect to accessibility, equity, quality and resources, as enumerated by Sudarshan and Subramanyan (2012):

Accessibility and Equity, i.e., making provision for affordable, quality and globally relevant education for the aspiring youth from all the strata of society, i.e., economically underprivileged concerning the rural-urban, caste-class, gender, religion and region, etc leads to a gap in the demand and supply.

**Quality:** in terms of employability of the technical graduates for global competitiveness; catering to the demands and requirements of industry/companies; focus on capacity building and the output.

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**Resources:** Another challenge is the declining budgetary resources by the government as 75-80% of the budget is spent on salaries and maintenance, with minor or marginal resource allocation for requirements of the curriculum, teaching-learning, research and innovation. The shrinking budget of the government on higher education is a significant cause of concern.

#### **Consequences-Shortfalls in Higher Education**

The challenges of equity and accessibility have been a significant cause of concern as it has led to:

- Adhocism: privatization without checks and balances;
- Shortage of trained and highly qualified faculty;
- Ill-equipped libraries and learning resources;
- Inadequate infrastructure (physical and software); and
- Lack of technical skills, reasoning and soft skills.

These are some of the significant factors affecting qualitative aspects of higher education.

# A Mismatch between Technical Education and Employability

Being a growing economy, there is an increase in demand for engineers and ICT professionals in India. Still, they lack competencies required by the engineering firms, industry and their hiring companies, as pointed out by Gokaldas (2010). Employers are not in a position to hire graduates with the required skills, to meet the requirements.

Another challenge is the increase in privatization of higher education in technical and professional fields. The question here arises: Have the Private Universities brought about any significant improvement in the Curriculum; Methodology; Research and Development, and learning outcomes?

# The Emergence of the Privatization of Higher Education

The edifice of higher education stands on the weak foundation of primary education. It is like an inverse pyramid. By the turn of this century, in the Tenth Five Year Plan (2002-2007), the Government of India shifted its focus from higher education to primary education given the poor performance in the field of primary education, with the objective of 'Education for All' (Para 1.72, P17, Vol. I).

Although showing concern for the falling quality in higher education compared to the increasing number of universities, it was stated that part of the problem faced by the universities is the inadequate provision of budgetary resources from the government. Since fiscal resources are limited, and such resources, as and when available, are to be allocated to primary education, it is essential to recognize that the universities must make more significant efforts to supplement their resources from the Government (Para 1.74, P17, Chapter I, Vol. I, Tenth Five Year Plan: Dimensions and Strategies). Further, it was also pointed out that many universities have not raised the university tuition fee for decades. A substantial hike in university fees is essential. The National Assessment and Accreditation Council (NAAC), in its reports, highlight the shortcomings in the quality aspect of higher education, concerning:

- Poor physical infrastructure.
- Lack of innovation.
- Redundant curriculum.
- Overemphasis on theory.
- Less importance to research and innovation.
- Demotivated teachers and researchers.
- Lack of quality monitoring.
- With the privatization and expansion of higher education, there is a:
- A mismatch between the demand and supply in the field of Management and Engineering and Technology.
- A mismatch between curriculum and requirements of the industry.
- Lack of interaction between the industry and universities/academia.
- Lack of integration and interaction of Science, Engineering, Technology and Research.

It is the age of information, and the workforce needs to be prepared to become a 'knowledge society, and this calls for a continuous up-gradation of knowledge and skills and universal communication for global interdependence. It has necessitated learning throughout life for human development and economic growth.

The quality in higher education is defined as a multidimensional, multilevel, and dynamic concept that relates to the context settings of an educational model, to the institutional mission and objectives, as well as to the specific standards within a given system, institution, programme, or discipline.

The meaning of quality depends on:

- (i) The understanding of the various interests of the stakeholders in higher education, i.e., students, labour market, society, government.
- (ii) References: inputs, process, outputs, missions, objectives.
- (iii) Attributes/characteristics of the academic world.

The Standing Committee PRS Legislative Research (2017) submitted its report on 'Issues and challenges before higher education sector in India', reported that the challenges of higher education in India after studying the higher education institutions in Hyderabad, Chandigarh, Patiala, Thiruvananthapuram, Udaipur, Chennai, Vishakhapatnam, Bhopal and Indore. The critical observations of the Committee are as follows:

- Shortage of resources
- A performance audit of teachers
- Lack of employable skills
- Accreditation of institutions to meet industry demand for quality workforce

#### **Quality Parameters in Higher Education**

Harvey, in 1995 (p3), designed five interrelated concepts of quality. These are:

- Exceptional View of Quality: which is distinctive and elitist, and extraordinary and, therefore, attainable by a select few.
- Quality as Perception as flawless with constant outcomes, attainable by all (democratic characteristic).
- Quality is the Fitness of Purpose in terms of fulfilling a customer's requirements, needs, and requirements, i.e., the ability of an institution to

fulfil its mission of the programmes of the students and its aims.

- Quality as Value for Money in terms of return on investment (by the students).
- Quality as Transformation refers to the enhancement and empowerment of the students, development of knowledge.

Harvey (1995, P3), in his paper 'Quality in Higher Education', emphasized the need for monitoring to:

- be more relevant to social and economic conditions;
- wider access;
- to be more cost-effective;
- to ensure comparability of the provisions and procedures within, and between the institutions, including international comparisons; and
- be responsible for a range of the stakeholders;

Zaiki and Rashidi (2013) compiled parameters of the quality of academic institutes of higher learning, which are relevant in the context of the present study. These are:

- Higher education **policies and practices** concerning physical infrastructure and human capital towards the faculty and staff development and academic guidelines for improving research and curriculum.
- **Resources:** Physical, human, and financial.
- Learners' Profile: diversity of the students concerning culture, motivation, digitally literate NET generation.
- **Curriculum:** contents and credits, material and methods, and evaluation.
- **Faculty:** knowledge, skills and abilities, and professional attitude of the teachers.
- **Institutional Leadership:** the ability to influence, motivate and enable others to contribute towards the effectiveness and success of the organization.
- Open System and Thinking reflect experimentation and adaptation to create a learning organization to cope effectively with the rapidly changing demands that require shared cohesive vision, team learning, and personal mastery.

According to industry estimates, '80% of job seekers in employment exchanges are without any professional skills and a quarter of all graduates are employable. There is a massive shortage of skilled workforce in India. Companies are not finding enough trained people to fit into different positions' (Duggal 2005). As a result of this, manufacturing industries and other technology sectors cannot get a technically qualified workforce (Duru, 2008). Lack of good teaching faculties and infrastructural support resulted in this problem of the poor quality of technical and engineering education in many privately funded engineering colleges.

The question arises as to what extents do the Private Universities and institutions of higher education fulfil the criteria of quality and efficiency in technical and professional education to enable the youth to become successful professionals and technocrats.

In the light of these developments, the present study was carried out with the following objectives.

The primary objective of the research paper was to assess the quality and efficiency of the professional and technical education being provided in public and private universities.

The focus of the qualitative assessment was on the needs and expectations of the internal customers.

The internal customers in the study are the recipients of the organizations' inputs, for example, the students and the faculty members.

The Qualitative Aspects were Assessed Concerning:

- The adequacy of infrastructure and learning resources.
- Curriculum design and development suitability and the relevance of the curriculum.
- Innovative practices of teaching and learning, and evaluation.
- Promotion of research activities,
- Faculty and student empowerment strategies.
- Value-based education with a sense of social purpose.
- University-industry interface and consultancy
- Governance and leadership.

#### **Objectives of Study**

In the light of these developments, the present

study was carried out with the following objectives:

- 1) To assess of Quality aspect of the Institutions.
- 2) To assess the research culture and promotion of research activities in Private and Government, Universities.

In this section, data have been presented concerning the qualitative aspects of the significant study. The results have been presented in three parts concerning:

٠	Assessment and Accreditation of the Institution:	Part A
•	Comparative status and Ranking	r alt A
	Comparative status and Kanking	

- of the University: Part B
- Promotion of Research: Part C

#### **Design of the Study**

The present study is a descriptive exploratory survey. It is descriptive in the sense that it is concerned with the analysis of the relationship with nonmanipulative variables in a natural setting as the events already exist. It is a systematic empirical inquiry to draw inferences about determinants of quality and efficiency due to the privatization of higher education. It involves the description and interpretation of the conditions that exist. The study was carried out in Private and Government Universities and Institutes of Higher Education, selected region wise from eleven districts of Punjab and also from the Union Territory of Chandigarh. The data were collected from Private and Government Universities/Institutes of Higher Education offering professional and technical courses in Puniab.

#### Method of Collection of Data

The data collected from the Heads and the Teachers mainly involved interactive/interview sessions held individually with them. The data were also collected from the final year students in the field of their specialization personally from each discipline/ subject/department with the help of questionnaires.

#### **Analysis of Results**

This section deals with the data about Quality Assurance: Accreditation and Assessment of the Institutions by External Agencies (Part A); Ranking of the Institution (Part B), and Promotion of Research activities (Part C) for enhancement of qualitative aspects of the University/Institute of Higher Education.

Accredited by	Pr	ivate	Government		Total	
	Ν	%	Ν	%	Ν	%
NBA	10	21.74	4	19.05	14	20.89
AICTE	16	34.78	1	4.76	17	25.37
NAAC (Grade A <sup>++</sup> )	1	2.17	3	14.29	4	5.97
NAAC (Grade A)	1	2.17	5	23.81	6	8.95
NAAC (Grade B)	6	13.04	-	-	6	8.95
No response/ not accredited	12	26.09	8	38.09	20	29.85
Total	46	99.99	21	100.0	67	99.98

**Table: 1 Accreditation of the Institutions** 

Source: IDC Survey Data

#### PART A

#### Accreditation of the Institutions

**Objective:** Assessment of the Quality aspect of the Institutions.

Regarding the accreditation by the external agencies as NAAC or other regulatory bodies, the data provided by the Heads are tabulated vide Table-1.

# NBA: Accreditation by National Board of Accreditation

Data entries in table-3 reflect that according to 46 Heads of Private Institutions/University Departments, 10 (21.74%) of them mentioned the accreditation of their respective disciplines by NBA (established in 2010). Out of 21 Heads of Government/State University Departments, 14 (20.89%) Heads had their Department/Institute accredited by NBA.

# AICTE: All India Council for Technical Education

16 Heads out of Private University/Institution (34.78%) mentioned the approval/recognition granted by the AICTE; in comparison to one out of 21 State University Departments approved by AICTE, which is 4.76%, depending on the discipline concerned.

#### NAAC: National Assessment and Accreditation Council

The data provided by the Heads indicated three levels of Grades assigned by the NAAC to the respective institutions.

**Grade A<sup>++</sup>:** One out of 46 (2.17%) Heads from Private, and 3 (14.29%) Heads out of Government

State University Departments/Institutions mentioned Grade A<sup>++</sup> assigned by the NAAC to their respective institutions/departments.

**Grade A:** One out of 46 (2.17%) Heads of Private Institutions and 5 (23.8%) out of 2 State University Department mentioned Grade A assigned by NAAC to their Institution.

**Grade B:** 6 (13.04%) of 46 Private Institutions/ Universities were placed in Grade B by NAAC.

In all, out of a total of 67 Institutions/Departments from Private and State-owned Universities, 14 (20.89%) were accredited by NBA; 17 (25.37%) Departments were approved by AICTE. 4 (5.97%) Institutions got  $A^{++}$  Grade; 6 (8.95%) of them were placed in Grade A, and an equal number was set in Grade B by NAAC.

However, 20 (29.85%) out of 67 of the Heads did not respond to the question.

In comparison, the Government Universities outnumber their counterparts of Private Universities earning A and A++ grades by the NAAC to the tune of 10 out of 67, i.e. 14.92 % against 2 out of 46, i.e. 4.35 in case of Private Universities.

#### PART B

#### Comparative Status with National Level Universities: Ranking of the University

This part deals with the ranking of the University with other national-level Universities/ Institutes.

Regarding the place of their University/ Department/Institute compared to other National Level Universities, the following table: 2 records the answers of the Heads.

Position/Rank	Priv	vate	Government		Total		
	Ν	%	Ν	%	Ν	%	
Top Ten	16	34.78	8	38.09	24	35.82	
Top Twenty	15	32.61	4	19.05	19	28.36	
Top Fifty	15	32.61	9	42.86	24	35.82	
Total	46	100.0	21	100.0	67	100.0	

Table: 2 Status/Position/Ranking of the University

Source: IDC Survey Data.

**Top Ten:** The considered opinion of the Heads regarding the position/ranking or the status of their institution in comparison to other national-level institutions reveals that out of 46 Heads of Private Institutions, 16 (34.78%) of them; and 8 (38.09%) Heads out of 21 of the State/Government University would place their respective University Department/ Institute among top 10 National level Universities/ Institutes in the country.

**Top Twenty:**15 (32.61%) Heads from Private and 4 (19.05%) Heads of the Government University Departments ranked their respective departments among the top twenty national-level Institutions/ Departments.

**Top Fifty:** 15 (32.61%) Heads of the Private, and 9 (42.86%) Heads of the Government University Departments ranked themselves or their institutes among the top 50 national-level universities.

In all, out of a total of 67 Heads, 24 (35.82%)

Heads visualized themselves or their institutes among the top ten in the country. 19 (28.36%) in the top 20, and 24 (36.82%) Heads placed them among the top 50 national-level institutions.

**Among the top ten**, the percentage of Government Universities Departments, which is 38.09, exceeds the Private Universities, 34.78 per cent.

#### PART C

#### **Promotion of Research**

The Universities/Institutes of Higher Learning are known for their research output. To promote research culture, what is required is the framing of policies, making provision of adequate resources, infrastructure, i.e. space and equipment and support facilities.

Objective: To assess the research culture and promote research activities in Private and Government

Promotion of Research Activities	Response	Private		Government		Total	
		N	%	N	%	Ν	%
UGC's SAP/CAS/DRS/DST/DBT/ICSSR/	Yes	32	34.04	50	62.5	82	47.13
AICTE	No	62	65.96	30	37.5	92	52.87
	Total	94	100.0	80	100.0	174	100.0
Recognition of Research Centres by State/	Yes	23	24.47	30	37.05	53	30.46
National/International Bodies Centre of Excellence	No	71	75.53	50	62.5	121	69.54
	Total	94	100.0	80	100.0	174	100.0
Special Research Labs Sponsored by	Yes	30	31.91	26	32.5	56	32.18
Industry/Corporate Bodies	No	64	68.09	43	67.5	118	67.82
	Total	94	100.0	80	100.0	174	100.0

**Table 3 Departmental Research Programmes** 

Source: IDC Survey Data

Universities, questions were framed accordingly for the teachers.

#### **Research Programmes**

The data have been recorded in Tables-3 to follow.

#### UGC's SAP/CAS/DRS/DST/DBT/ICSSR/ AICTE

For Promotion and Strengthening of Research, several programmes are sponsored by UGC, such as Special Assistance Programme (SAP), Centre for Advanced Studies (CAS) Department of Research Support (DRS), apart from support provided by ICSSR and IICTE, DST, DBT, and Government Funded Projects that are being carried out in the Universities.

Under these initiatives/incentives, in 32 (34.04%) out of 94 Private; and 50 (62.5%) out of 80 Government Universities, research work is being strengthened, as per responses recorded in the table. Under these incentives, the quality of research as well as of researchers is also improved.

Taken together in Private Universities, 62 (65.96%) teachers; and in Government Universities 30 (37.5%) teachers, where these programmes do not exist, 53% teachers were deprived of research support, affecting the quality and research output adversely.

#### Recognition of Research Centres by State/ National/International Bodies: Centre of Excellence

A University Department with a Research Centre recognized by State/National Bodies as the Centre of Excellence has the potential for quality research output.

In this context, 23 (24.47%) Private and 30 (37.05%) Government University teachers benefit from the promotion of research work. But a more extensive section of teachers, both from Private and Government institutions, i.e. 71 (75.53%) and 50 (62.5%) respectively, are devoid of this privilege, which comes to a total of 121 (69.54%).

# Special Research Labs Sponsored by Industry or Corporate Bodies

This is another scheme/alternative support system for promoting research, particularly in the field of Engineering and Technology. Under this category, 30 (31.91%) of the Private; and 26 (32.5%) of Government University Departments benefit.

Again, 64 (68.09%) in Private; and 26 (32.5%) Government University Departments do not have this programme.

Since 66% to 76% in Private Universities and 37 to 67% in Government University Departments do not have any of these research facilities or programmes, it may affect research work adversely.

For the promotion of research, UGC's Special Assistance Programme or Centre of Excellence, and Research Labs sponsored by industry etc., is a matter of pride and honour, as it speaks volumes of the dedicated efforts put in by the academicians in research work. On this account, the Government Universities/ Departments have the edge over Government Institutions.

#### To Sum

#### **Quality Assurance**

- For the quality assurance as assessed by NAAC, the Government University Departments/Institutes outnumber their counterparts in getting A and A<sup>++</sup> Grade; which is 14.92% against 4.36% in the case of Private Universities.
- 38.09% of Government University Departments/ Institutes rated them among the top 10 Universities of National level, which is higher than 34.78% of Private Universities.

#### **Promotion of Research Activities**

- 62.5% of Government, Universities/Institutes have support from UGC/DST/ICSSR/AICTE bodies compared to 34.04% of Private Universities.
- Recognition of Research Centres/Centre of Excellence by State/National Bodies is mentioned by 37.05% in government and 24.27% in Private Universities.
- Special Research labs sponsored by Industry/ Corporate bodies were mentioned by 31.91% Private; 32.50% teachers from Private and Government University Departments.

#### Conclusion

The institutions need to pay UGC scales for the teachers to attract adequately qualified and best

faculty in the institutions to maintain high standards of quality in teaching and learning, But all it requires is adequate resources. Investment in the promotion of research programmes and maintaining quality in higher education has its rewards. To enable the University/Institutes to compete with world-class universities, the Management in Government, as well as Private Universities, need to create a better ambience for research by providing greater flexibility to promote research activities among the teachers and the students. The Universities have the research potential, and the industry can provide financial support to carry out researches befitting their needs and requirements and bring about desirable changes in the system. For Promotion of Research: University-Industry consultancy and University-Industry collaboration has to be a Joint Venture. The research activities to be geared to fulfil the requirements of the industry.

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#### (contd. from pg. 9)

#### Conclusion

It appears that there are many lacunae in the CAS scheme of UGC. Constitution of an expert committee to relook at the CAS by seeking input from teachers is a matter of importance. Since teaching profession provides the next generation leaders, concerns and disparities that affect those who practice this noble profession should be rectified. Universities which have been conferred with autonomy / excellence / eminence status should be allowed to evolve their own CAS guidelines that will encourage the teachers to perform much better by way of promoting them as and when they achieve a certain expectation mark, without the requirement of the mandatory length of the service to be acquired to be eligible for promotion.

#### **Conflicts of Interest**

The author has no conflict of interest to declare.

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### **Quality Education is the Key to Transform Society**

Ran Nath Kovind, Hon'ble President of India delivered the Convocation Address at the 19<sup>th</sup> Convocation Ceremony of the Tezpur University, Tezpur on February 26, 2022. He said, "With a view to making higher education more accessible, the central government has decided to establish a Digital University to provide access to students across the country for world-class quality universal education with personalized learning experience at the doorsteps of students. The Digital University will provide education in different Indian languages and ICT formats." Excerpts

I commend the efforts of all the students who have received their degrees, diplomas and medals at this 19th convocation of Tezpur University. It is a very important day for all the students, their family-members and teachers.

I also congratulate all the teachers and guardians on this happy occasion. Getting an opportunity to live and study in this beautiful and spacious campus must be a delight in itself. In this campus, one gets a feel of the natural beauty of Assam and the hospitality of the people here.

Dear students, You have spent your universitydays in a city which is associated with great cultural icons like Rupkonwar Jyoti Prasad Agarwala, Kalaguru Bishnu Prasad Rava, Natasurya Phani Sarma and Bharat-Ratna Dr. Bhupen Hazarika. I hope you have read their biographies to learn about the great cultural traditions of India and the North-East.

You must be proud of the fact that your Vishva-Vidyalay Geet was written and composed by the great Bhupen Hazarika. The university song has a very meaningful line that says:

Maanavataa-baader dhyaanar pratik Tezpur Vishvavidyalay which means that Tezpur University is a symbol of concern for humanity.

This line echoes his famous song:

Maanuhe Manuhar Babe, that is, a human being lives for other human beings. This feeling of compassion for entire humanity should be your guiding principle. You should draw inspiration from the great personalities associated with this university and the city of Tezpur and resolve to contribute to the wellbeing of the people of India and the world. The glorious traditions of the past should inspire you to work for a great future.

Ladies and gentlemen, It is heartening to note that the States in the North-East give high priority to organic farming. The university can play a major role in branding and marketing of agricultural produce of this region. I am happy to note that the university has received approval under the 'Prime MinisterFormalization of Micro Food Processing Enterprises Scheme' for setting up an incubation centre to process jackfruit and ready to eat cereals-based products. I am told that the Food Engineering & Technology Department has been recognised as State Level Technical Institute for implementation of the Scheme. In this context, I am reminded of the unique Joha rice of Assam which is known for its excellent taste and aroma. It need not be cooked in hot water. It can be put in normal water for a few minutes and can be relished after that. Universities of Assam can help the farmers by branding, popularising and marketing this unique variety of rice. There are many such agricultural products that can be promoted.

Ladies and gentlemen, Assam is gifted with extraordinary beauty of nature and rich bio-diversity. This has to be preserved. Every resident of Assam, especially the youth has to be very active on the fronts of conservation and sustainable development. I am glad to know about the renewable energy initiatives of the university, especially in the villages. The young population has greater stakes in keeping the planet green. They have to demonstrate greater awareness through their action.

Assam has done a commendable job in conserving bio-diversity. Kaziranga National Park and Tiger Reserve, as also the Elephant Reserve are impressive examples of conservation. During this visit, I will be going to Kaziranga National Park and will also inaugurate an exhibition on conservation. Conservation must be the watch word for every citizen, especially the student community.

Development initiatives for the eastern part of India, specially the North-East are being given special thrust. I appreciate the efforts of the Assam government led by the Chief Minister Dr. Himanta Biswa Sarma for onward march of Assam on the path to progress. The young population is both, a driver and a key beneficiary of development and progress. I am happy to note that the university is promoting collaboration with major industries. I am also happy about the university having substantial number of consultancy projects in different areas of development.

Dear students, Your academic activities have been affected by the COVID-19 pandemic. The pandemic has had serious impact on the education of the relatively vulnerable sections of our people. The National Education Policy-2020 which was released during the pandemic contains specific focus on digital education with the help of technology. With a view to making higher education more accessible, the central government has decided to establish a Digital University to provide access to students across the country for world-class quality universal education with personalized learning experience at the doorsteps of students. The Digital University will provide education in different Indian languages and ICT formats. Tezpur University can become an active stakeholder in this initiative, specially by providing high quality digital content in Assamese and other languages of the North-East.

The students and faculty of Tezpur University should try to make it a major centre of innovation. The university community should provide innovative solutions to local and national problems. For this, community participation and use of local resources should be encouraged. I am happy to know about innovative solutions provided by Tezpur University for reaching safe drinking water to many villages in Assam. The scope of the university's engagement with villages should be further expanded. As a visitor of the institutions of higher education under the central government, I have been encouraging the institutions to promote Universities' Social Responsibility or USR on the lines of Corporate Social Responsibility. Engagement of students with rural population is one of the key features of USR. Tezpur University can adopt some villages for helping in their overall development.

The National Education Policy-2020 also seeks to provide pathways for the future in a globalized world while preserving time-honoured Indian values like compassion, morality, truth and good conduct. The motto of this university, Vigyanam Yagyam Tanute, reflects the approach of blending the eternal with the futuristic. The motto, taken from a Mantra in the Taittiriya Upanishad lends itself to different rich interpretations. The university has adopted it to mean 'Specialized Knowledge Promotes Creativity'. The Mantra in the Upanishad just after the adopted motto says Karmani Tanutepi Cha which would mean 'Specialized Knowledge Promotes Action Too'. Thus, while Tezpur University seeks to promote specialized knowledge for creativity, it should also seek to promote action. Action oriented creativity and learning should be the composite message as contained in the excellent motto of your university.

I appreciate the establishment of the Centre for Multi-disciplinary Research in the university to undertake research problems with social relevance. The university having more than three hundred research projects amounting to a total grant of nearly Rupees 95 crore is a promising development. I want to share with you all, my happiness in having approved Visitor Award to the esteemed faculty-members of the university in the year 2021 for 'Technology and Development' related to physics, and in the year 2018 for 'Research' related to molecular biology and biotechnology.

Ladies and gentlemen, I am happy to observe that Tezpur University has been promoting women empowerment through education. I am told that about 1250 students graduated today, out of whom about 45 percent are women. Out of the 47 students who have been awarded gold medals, 27 are our daughters which is much more than half of the total number of gold medalists. I have observed this trend of our daughters out-performing the boys in most of the convocations I have attended. This excellence displayed by women is a reflection of India's future as a gender-just nation. I convey my special congratulations to each and every daughter for her distinct achievement today.

I urge upon the entire team of Tezpur University to keep past, present and future students bound by the spirit of oneness and move rapidly towards the goals set by the university – xopaan bogaam teebro gotire. By moving fast to achieve ambitious targets, the university will be able to contribute meaningfully to India's emergence as a much more prosperous and strong nation by the year 2047 when the students of today will be among the decision makers. The real spirit behind celebrating 'Azadi Ka Amrit Mahotsav', marking 75 years since our independence, is to build upon our learning so far and aim for higher goals. Tezpur University should strive to be among the top 10 universities in the NIRF ranking in the near future.

I once again congratulate the students for their achievements. I also appreciate the teachers and staff who made the achievements possible for the students. The vice-chancellor and his team deserve to be congratulated too. The residents of Assam, especially the students, are fortunate to have the sage counsel of the governor Professor Jagdish Mukhi who himself is from the world of academia. My best wishes to all of you for all your endeavours to make your own life and the lives of the people of India better.

> Thank you, Jai Hind!

# **CAMPUS NEWS**

#### **International Women's Day Celebration**

The International Women's Day was celebrated on the theme 'Gender Equality Today for a Sustainable Tomorrow' by the School of Pedagogical Sciences, Mahatma Gandhi University on 8th March, 2022. The programme began with a silent prayer followed by the welcome speech of Ms Jeeva S Kumar, student representative of the School of Pedagogical Sciences. She spoke about the indispensable role played by women and the importance of commemorating their achievements in various fields. The Presidential Address was delivered by Prof Jaya Jaise, Professor, School of Pedagogical Sciences, Mahatma Gandhi University. She began by sowing the seeds of unrest in the young minds urging to critically reflect upon the meaning of the word women and the place she occupies in various spheres like home, workplace, society, etc. The selfless struggles, the difficult paths trodden and the protests raised by the great women of the past. The theme of International Women's Day was also discussed. She said that even in the twenty first century the pathetic plight of women is appalling. The speaker emphasized the significance of an indiscriminate perception towards women and stressed the need for mutual respect and complementary relationship. She also stressed the importance of ensuring gender equality for the welfare of generations. The significance of colour purple selected for celebrating the global occasion was also detailed. She said that the colour purple signify justice, dignity, loyalty, the constancy to purpose and unswerving steadfastness to a cause. The victorious women in different fields of science, literature, history, politics and other fields showcased the uncontainable panorama of women in the annals of history. Finally, concluded her speech urging the listeners to salute and pay respect to women for their sacrifices.

Keynote Speaker, Dr Aju K. Narayanan, Associate Professor, School of Letters, Mahatma Gandhi University started the session by recalling his past memories related to the department and his leadership in the direction of *Samaksham*, a first fulllength feature film that the university has produced in Kerala. He recalled the memories and said that the

memories are histories. He then called the attention to the observance of certain days in history each with a varied purpose. For example, the celebration of Independence Day is a looking back into the future whereas observance of Valentine's Day, Father's Day, International Mother Language Day is associated with contemporariness. He emphasized on the celebration of International Women's Day as a signifier of progression. It is not a day to be celebrated and forgotten but a goal to be achieved in future. He said the need of the hour is to develop political sensibility and the enthusiasm to harbour it for a sustainable future. Dr Narayanan also talked about modernity. Mechanization is a prime reason for modernity and this modern consciousness gave birth to the concept of citizenship. The Voting is an ontological process. It is a testimony for your existence this by constitution. Everyone had the same rights but in New Zealand the right was granted exclusively to men. Even in a modernist society women were treated as lifeless entities. In 1557, women organized and protested for this cause. He said during Sangham period women had respect and were allowed intellectual pursuits. There were female poets like Ms Avvaiyar who flourished and contributed to literature. He also discussed the role of myth and culture in portraying women as subordinate to men. He said gender is a social construct and not a biological one. The resource person said the acclaimed women writer Simone de Beauvoir's 'second sex' started empowerment in Europe. De Beauvoir's analysis brought the category of 'gender' into focus for the first time. The speaker also mentioned contemporary women writers like Ms Saraswatiyamma whose magical writings had the power to inspire more women in unleashing their creativity. The speaker also mentioned the world renowned work of Judith Butler 'Gender Trouble'. 'Gender' according to her is by no way tied to material body facts, but solely and completely a human construction. Her concept of performativity was also discussed. The concept of 'gendered language ' and how it shapes and perpetuates gender distinctions was also discussed. The patriarchy hidden in the Kerala architecture was also unveiled by the speaker. He also discussed the

importance of collective efforts in ensuring women's rights. Speaker concluded his thoughts quoting the book '*kulasthreeyumchantapennum*' written by Ms Jayadevika, Social Activist who made strenuous effort to bring gender disparity of our society in light.

The programme was then felicitated by Dr Ismail Thamarasseri, Assistant Professor, School of Pedagogical Sciences, M G University. Mr Ebenezer PV (M.Ed. II<sup>nd</sup> Year) spoke about the need of carrying this spirit every day and not confining it to a single day. He said that the achievements of eminent women from different fields like- *Harnaaz Sandhu, Tulsi Gowda, Bhavana Khanth*- should fuel our desire to inscribe our names in the book of history. He ended his speech urging women to be gender neutral in attitude as well.

Ms Parvathy Rajan spoke about the 'Gender Perspective in Literature'. She detailed about the portrayals of women in different periods of British literature as well as of English literature. Ms Rajan spoke about the several powerful female characters in novels as from Greek mythology who should be an inspiration for all the women. She also expressed her concern regarding the unrealistic, stereotypical portrayal of women in popular culture.

The Power Point Presentation depicting the theme of International Women's Day and oath to be taken by men was presented. It also contained the images of strong Indian Women and their inspiring words. Convenor, Mr Jaison P Sunny proposed the Vote of Thanks. He also remarked on contemporary issues related to women and discussed the inevitable role society has in ensuring empowerment.

#### Virtual International Conference on Innovation and Research in Science and Technology for Sustainable Development

A two-day Virtual International Conference on 'Innovation and Research in Science and Technology for Sustainable Development' is being organised by the School of Science, OP Jindal University, Raigarh, Chhattisgarh on May 27-28, 2022.

Frontiers of knowledge are expanding very fast. Science and technologies are no exception. They are dynamic, expanding body of knowledge, and covering ever-new domains of experience. In such a progressive society, science can play a truly liberating role, helping people escape from the vicious cycle of poverty, ignorance and superstition. The conference themed around the numerous outstanding results and new difficulties in the applied sciences and technology as well as management and humanities sectors. This event aims at bringing researchers, specialists, designers, and students from all fields of applied sciences and technology and provides a global panel for the dissemination of primary study conclusions, new approaches, and developmental practices that focus on both principles and application. The Conference aims at providing a premier interdisciplinary platform to present and discuss the most recent sustainable innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the field of Science and Technology. Distinguished speakers from academia and industries will deliver keynote speeches on Applied Sciences, Recent Technologies, Disaster Management and other fields related to Management and Humanities, etc. This two days' event will include keynote sessions, plenary sessions, paper presentations and technical sessions by expert. Accepted papers will be published in Conference Proceeding/ UGC Care list journal. The Tracks of the Event are:

#### Applied Sciences

- Chemistry.
- Physics.
- Geological Sciences.
- Ecology and Management.
- Microbiology.
- Mathematics.
- Biology.
- Biotechnology.
- Material sciences.
- Environmental Science.
- Air Pollution.
- Water Pollution.
- Effects On Global Flora and Fauna.
- Global Warming.
- Greenhouse Gases.
- Renewable sciences.

#### Engineering and Technology

• Electrical Engineering.

- Computer Engineering.
- Mechanical Engineering.
- Industrial Engineering.
- Process Engineering.
- Structural Engineering.
- Nano engineering.
- Manufacturing Engineering.
- Materials Engineering.
- Electronic Engineering.
- Energy Engineering.
- Environmental Engineering.

#### **Disaster Management**

- Climate Change.
- Environment and Ecosystems.
- Food security and Agriculture, Water.
- Capacity Development
- Community-based DRR.
- Gender, Human Mobility.
- Disaster Analysis.
- Disaster Monitoring and Mitigation.
- Emergency Preparedness.
- Risk Mitigation.
- Community Recovery and Resilience.
- Socio-economic Issues.
- Public Health Risk.

#### **Other Themes**

- Recent Trends in Science Innovation and Research.
- Scientific Knowledge and Skill Development.
- ICT for Quality Science Education.
- Language and Science Education.
- Resources for Science Education.
- Knowledge Management.
- Innovative Pedagogies for Effective Teaching-Learning of Science.
- Alternative Frameworks in Science.
- Advancement in Science and its Utility.
- Ancient Indian Scientific Knowledge and its Relevance in Modern Time.
- Science Curriculum for Life-Long Learning and Value Development.

- Science Education for Sustainable Development.
- Status of Science Education in India and other Countries.
- Science, Technology and Society Perspectives.
- Educational Leadership, Management and Emerging Technologies.
- Learning Management Systems.

For further details, contact Convener, Dr Ankur Rastogi, Associate Professor (Chemistry), School of Science, OP Jindal University, OP Jindal Knowledge Park, Punjipathra Raigarh, Chhattisgarh–496109, Mobile No: 9755927688, E-mail: *ankur:rastogi@ opju.ac.in.* For updates, log on to: *www. https://jgu. edu.in/* 

#### National e-Workshop on Advanced Research Methodology

A ten-day National e-Workshop on 'Advanced Research Methodology in Social Sciences' is being organized by the A. K. Dasgupta Centre for Planning and Development, Visva-Bharati, West Bengal during April 20-29, 2022. The faculty members of colleges, universities, management executives and research scholars may participate in the programme. The aim of the event is to impart knowledge on quantitative and qualitative analyses used in research along with many important concepts of research methodology which are useful for perusing any scientific research. It will give exposure on advanced statistical tools and techniques used for analyzing field data. The Topics of the event are:

- Introduction to Research Methodological Issues in Social Science Research.
- Steps in Research Process: a) Identification of Research Problem b) Converting Problem into Research c) Formulation and Planning Concepts in Research.
- Research Design.
- Formulation of Hypotheses, Types of Hypotheses, Testing of Hypotheses.
- Overview on Quantitative and Qualitative Research Methods.
- Data Collection Tools and Techniques.
- Data and e-resources.
- Objectivity in Social Science Research.
- Content and Discourse Analysis.

- Formulation of Research Proposal and Writing Synopsis.
- Sampling: Techniques and Methods.
- Plagiarism: What is it? And How to Check and Avoid it.
- Report Writing and Referencing.

For further details, contact Sri Daya Shankar Kushwaha, A. K. Dasgupta Centre for Planning and Development, Visva-Bharati, West Bengal-713101, Mobile no: 09474644413/09475983934, E-mail: *vbplanning46@gmail.com*. For updates, log on to: *www.akdcentrevisvabharati.org* 

#### World Conference on Feminist Futures in Precarious Times

A three-day World Conference on 'Feminist Futures in Precarious Times: Decoloniality, Borderlands, and Transformative Visions' is being organized by The International Institute of Knowledge Management (TIIKM), Sri Lanka during May 12-14, 2022.

How can feminisms and Women's Studies help scholars, policy makers, students, and practitioners navigate the complex precarity of the world today? Climate emergencies are producing climate refugees. Billionaires, horde the world's resources while others starve from inequitable policies exacerbated by human exponential population explosion, loss of biodiversity in a 6<sup>th</sup> mass extinction, and global pandemic. These are precarious times indeed, especially for the most vulnerable among us, women and children, particularly those of marginalized, minoritized social statusescaste, race, ethnicity, religion, sexuality, disability and the like. Even among those of us who are more privileged, mental health crises are rising through the daily stresses of inflation, poor air and water quality, difficulties accessing health care and other services, long working hours, battling stereotypes and microaggressions, combined with the existential awareness of overarching planetary problems. Most ironic, is that many of the ideas for how to transform current realities exist. The problem is in the intractability of human socio-cultural, political, and economic systems, slow to move, stifled by those in power.

Feminists have galvanized change in societies worldwide for over a century and a half and must continue to do so, in spite of pushback. In fact, pushback is the inevitable response when the status quo is threatened by those who think they have the most to lose and who measure their loss in material wealth and the capacity to make decisions over others. Thus, humanity is always in need of transformative visions-visions for how to enact change, visions about the nature of change. Feminist decolonial curricula and scholarship, meaningful across borders, are increasingly shedding light on global histories of multiple colonizations, power abuses, and imperialisms. Their truths and pathways for decolonizing minds and bodies can uplift our spirits in hope of a different imaginary. Coalitions built across borderlands, galvanized by optics that are egalitarian, equitable, humane, ecological, queer/non-binary, must be taught in new pedagogies, inspiring the young, creating new social structures in the home, among peers and colleagues, in the workplace, in governing bodies. They must be translated into languages that all understand to bring about the great changes that we need. The Topics of the event are:

- Queer Optics and Feminism.
- Land rights.
- Reproductive Politics.
- Precarities and Vulnerabilities.
- Protests and Uprisings.
- Black Lives Matter.
- Dalit Lives Matter.
- Climate Refugees.
- Gender Equality and Educational Systems.
- Toxic Masculinity.
- Resocialization of Men.
- Socialization of boys.
- Legal remedies.
- Implementing law.
- Law and accountability.
- Inheritance rights.
- Gender and Sexual Diversity.
- Women's Human rights.
- Women, Climate Change and Inequality.
- Women Empowerment and Social Change.
- Challenging Male Dominance.
- Consciousness-raising.

- Men as allies in the struggle.
- Women and Sports.
- Women, Media and Technology.
- Transgender Rights and Sexual Diversity.
- Women's Success Stories.
- Cyber Feminisms—Blogs, Zines, and Reproductive Rights.
- Activist Art.
- Feminism and decolonial praxis.
- Women's Spirituality and Religion.
- Trafficking and Prostitution.
- Women in Politics and Public Administration.
- Women and Religion.
- Women and Islamic Sharia.
- Motherhood and Work-Life Balance.
- Equity and Equality.

- Laws and Policies.
- Gendered and Sexual Diversities.
- Gendering the COVID-19 Pandemic.
- Gender and Intersectionality.
- Feminist Pedagogy and Writing.
- Gender and Migration.
- Climate Crisis and Environmental Activism.
- Women's Vulnerabilities.
- Popular and Folk Cultures.
- Feminism and Nationalism.

For further details, contact Organising Secretary, International Institute of Knowledge Management, #531/18, Kotte road, Pitakotte, Sri Lanka, Phone No: +94 117 992 022, Fax: +94 112 835 571, Hotline: +94 765 733 737.E-mail: *isanka.gamage@tiikmedu.com*. For updates, log on to: *www.tiikm.com* □

#### HANDBOOK ON ENGINEERING EDUCATION (2016)

The 12<sup>th</sup>Edition of **"Handbook on Engineering Education"** is primarily meant for students seeking admission to Engineering/Technology/Architecture programmes at the undergraduate and postgraduate levels. It contains State-wise information on 1050 colleges/institutes/ university departments in the country. The information of Institutions in the Handbook includes: Year of establishment of Institute/ Department/ name of its Principal/ Director; probable date of Notification/last date of application; Number of seats available in each Engineering/ Technology branch; seats for NRIs/Foreign students; Eligibility; Application procedure; State-wise Common Entrance Test Rules for B.E/B.Tech/B.Arch courses; Fees; Hostel facilities, etc. Also given is 'Faculty strength', commencement of Academic Session, and System of Examination. Brief details of Post-graduate courses are also included.

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### **THESES OF THE MONTH**

#### SOCIAL SCIENCES

#### A List of doctoral theses accepted by Indian Universities (Notifications received in AIU during the month of Dec 2021- Jan 2022)

#### Commerce

1. Ghanchi, Mustufa Sultanbhai. Analysis of warehouse facilities of Mehsana District in Gujarat. (Dr. J A Sarvaiya), Department of Commerce, Gujarat University, Ahmedabad.

2. Jai Kishan. An analytical study of the role of Employees Provident Fund Organization (E.P.F.O) in economic development of the organized labour sector: With special reference to Rajasthan State. (Dr. Priyanka Garg), Department of Commerce, Tantia University,Sri Ganganagar.

3. Mena, Liha. Organizational commitment and organizational citizenship behaviour: A study of electric corporations in Meghalaya. (Dr. Ricky A J Syngkon), Department of Commerce, North Eastern Hill University, Shillong.

4. Mishra, Vijay. A study of financial performance of selected listed companies of Birla Group. (Dr. Pradip Manjrekar), Faculty of Commerce and Management, Tantia University, Sri Ganganagar.

5. Sharma, Shivani. **Impact of dividend announcement on stock prices of selected Indian companies**. (Dr. S S Sodha), Faculty of Commerce, Gujarat University, Ahmedabad.

6. Sushila. Impact of behavioural biases on investment decision of individual equity investors in NCR. (Dr. Bhavna Sharma), Department of Commerce, Bhagat Phool Singh Mahila Vishwavidyalaya, Khanpur Kalan.

#### **Defence Studies**

1. Ajab Singh. **Theory and practice of Guerrilla** warfare in nuclear age: An analytical study. (Dr. R S Siwach), Department of Defence and Strategic Studies, Maharshi Dayanand University, Rohtak.

#### Economics

1. Anand, Swati. Comparative analysis of financial literacy and behaviroral control on the household wealth of generation Y: With special reference to Uttar Pradesh. (Prof. Kushendra Mishra), Department of Rural Management, Babasaheb Bhim Rao Ambedkar University, Lucknow. 2. Arun Kumar. Performance of insurance sector in rural India: An exploratory study of life insurance policy sector in Uttar Pradesh. (Dr. Abhilash Babu and Dr. Ramesh Kumar Chaturvedi), Department of Rural Management, Babasaheb Bhim Rao Ambedkar University, Lucknow.

3. Chavda, Sureshkumar Ambalal. A comparative study of the effectiveness of village level HIV/AIDS program of Mahesana District. (Dr. Mayuribahen Farmer), Department of Rural Management, Gujarat Vidyapith, Ahmedabad.

4. Dabas, Preeti. An analysis of burden of health care cost on households in Haryana: Empirical evidences from Rohtak City. (Dr. Anita Dagar), Department of Economics, Maharshi Dayanand University, Rohtak.

5. Goyal, Sumeet. Economic impact of air pollution on health: A case study of Delhi. (Prof. Kaustuva Barik and Dr. Roopali Goyanka), Department of Economics, Indira Gandhi National Open University, New Delhi.

6. Kamala. Analytical study on human labour availability and its utilization pattern in Punjab agriculture. Department of Economics, Eternal University, Sirmour.

7. Konch, Bhoirab Jyoti. A study of financial inclusion in rural Assam. (Dr. Lijum Nochi), Department of Economics, Rajiv Gandhi University, Itanagar.

8. Mohammad, Mussa. A study of consumer behaviour for religious and pilgrimage tourism with special reference to Amarnath Cave in Kashmir: Challenges and its social-economic impact on Kashmir. (Dr. Abhilash Babu and Prof. M S Khan), Department of Rural Management, Babasaheb Bhim Rao Ambedkar University, Lucknow.

9. Naik, Kumara. An analysis of health indicators in Hyderabad-Karnataka Region. (Dr. P S Sasdhar), Department of Economics, Vijayanagara Sri Krishnadevaraya University, Ballari.

10. Raviraj Singh. Financial administration and controlling mechanism of higher education institution

focusing central universities of India with special reference to Babsaheb Bhimrao Ambedkar University Lucknow U P. (Prof. M S Khan), Department of Rural Management, Babasaheb Bhim Rao Ambedkar University, Lucknow.

11. Singh, Alka. **Displacement due to development** of projects: A case study of Lucknow District in Uttar Pradesh. (Prof. Sanatan Nayak), Department of Economics, Babasaheb Bhim Rao Ambedkar University, Lucknow.

12. Virender Singh. Impact of crop diversification on farmers of Haryana: With special reference to Districts Fatehabad & Sirsa (Haryana). (Dr. Sandeep Singh), Faculty of Arts, Crafts & Social Sciences, Tantia University, Sri Ganganagar.

#### Education

1. Abdi, Aden Ali. **Problems of Teacher at school level in Garissa country of North-Eastern Kenya**. (Prof. B B Kharbirymbai), Department of Education, North Eastern Hill University, Shillong.

2. Makwana, Kamleshkumar Karsanbhai. A critical analysis of the impact of various programmes launched for development of primary education system in Gujarat State. (Dr. Laljibhai Patel), Department of Education, Gujarat Vidyapith, Ahmedabad.

3. Marak, Kasaatchi Tera K. Effect of thinking strategy on creativity of university students.(Dr. Nikme S C Momin), Department of Education, North Eastern Hill University, Shillong.

4. Poonam Rani. The study of the relationship between teacher attitude, self empowerment and mental health of college lecturer on students achievement of Ajmer District in Rajasthan. (Prof. R K S Arora), Department of Education, Bhagwant University, Ajmer.

5. Rohtash. Academic achievement and learning styles of secondary school students in relation to extraversion-introversion, divergent thinking and locus of control. (Dr. Indira Dhull), Department of Education, Maharshi Dayanand University, Rohtak.

6. Sharma, Neelam. Study of effect of management of government and non government higher secondary schools on teacher's educational attitude and work satisfaction. (Dr. Rajesh Sharma), Faculty of Education, Tantia University, Sri Ganganagar.

#### Journalism & Mass Communication

1. Aarya, Amarendra Kumar. Public discourse of Mahatma Gandhi in the context of folk songs: A disquisition study (With special reference to folk songs prevalent in Bihar). (Dr. Pawan S Malik), Department of Mass Communication, Makhanlal Chaturvedi University of Journalism and Communication, Bhopal.

Law

1. Abhayachandran, K. **Right to form associations** or unions: Constitutional, legislative and judicial perspectives. (Prof. M C Valson), Faculty of Law, The National University of Advanced Legal Studies, Ernakulam.

2. Bhalla, Nirmit. Judicial activism via public interest litigation in India: A critical analysis in present scenario. (Dr. Ritu Choudhary), Department of Law, Tantia University, Sri Ganganagar.

3. Goyat, Rahul. Law relating to Juvenile justice in India: Emerging legislative and judicial trends. (Dr. Ved Pal Singh), Faculty of Law, Maharshi Dayanand University, Rohtak.

4. Harpreet Kaur. **Domestic violence in India: A socio-legal studies**. (Dr. Gurpreet Singh), Department of Law, Tantia University, Sri Ganganagar.

5. Kadeejabi, AA. Scope of scientific investigation in administration of criminal justice system. (Dr. K P Kylasanatha), Faculty of Law, The National University of Advanced Legal Studies, Ernakulam.

6. Mohit, C S. Legal protection of the rights and dignity of elders in India: A critical and comparative study with special reference to Kerala. (Dr. Sonia K Das), Faculty of Law, The National University of Advanced Legal Studies, Ernakulam.

7. Ramachandran, Kavitha. **Emerging economic frauds in banking sector**. (Prof. M C Valson), Faculty of Law, The National University of Advanced Legal Studies, Ernakulam.

8. Shokat, Alikhan. Protection of traditional knowledge under intellectual property rights regime in India: A Critical study. (Dr. Kaptan Chand), Faculty of Law, Tantia University, Sri Ganganagar.

9. Sweta Rani. A study of Right to Information with special reference to working of State Information Commission of Uttar Pradesh, Lucknow. (Prof.Priti Saxena), Department of Human Rights, Babasaheb Bhim Rao Ambedkar University, Lucknow.

10. Yadav, Atma. Law relating to burden of proof in India: Problems and Issues. (Dr. Naresh Kumar), Faculty of Law, Tantia University, Sri Ganganagar.

#### Library & Information Science

1. Bharati, Vijay Kumar. Indian contribution to antibiotics research: A scientometric study. (Prof. M P

Singh), Department of Library and Information Science, Babasaheb Bhim Rao Ambedkar University, Lucknow.

2. Jigyshu, Omprkash Kumar. Satisfaction level on web based library resource and services among Library and Information Science Research scholars of central universities in North India: A study. (Prof. K L Mahawar), Department of Library and Information Science, Babasaheb Bhim Rao Ambedkar University, Lucknow.

3. Singh, Priyanka. Utility and management of information resources in the resource centers of National Institutes of Fashion Technology (NIFTs) in India. (Dr. R K Choudhary), Department of Library and Information Science, Babasaheb Bhim Rao Ambedkar University, Lucknow.

4. Srivastava, Reeta. Varanasi isthit Kashi Hindu Vishwavidyalaya, Mahatma Gandhi Vidhyapeeth evam Sampurnanand Sanskrit Vishwavidyalaya ke Pustakalye evam Suchna Vighyan ke sahitye ke upyog ka tulnatamak adhyayan. (Dr. Sanjeev Saraf), Department of Library Science, Bhagwant University, Ajmer.

#### Management

1. Dey, Moumita. Astudy on e-commerce adoption by Small and Medium Enterprises (SMEs) in select District of Assam. (Dr. Bimal Debnath), Department of Management, North Eastern Hill University, Shillong.

2. Gandhi, Divyeshkumar Jitendrakumar. A study on effect of financial inclusion schemes on rural households of South Gujarat. (Dr. Chetankumar J Lad), Department of Management, Gujarat Technological University, Ahmedabad.

3. Khokhar, Neha. A critical study on the effects of organisations structure on employee and job satisfaction. (Dr. Ritika Moolchandani), Department of Management, Bhagwant University, Ajmer.

4. Pogul, Prashant Laxminarayan. Interface of experimental marketing shoppers behaviour and loyalty in organized retailing: Study on select retails malls in Greater Hyderabad. (Dr. A Udaya Shankar), Department of Management, Koneru Lakshmaiah Education Foundation, Guntur.

5. Mahapatra, Sandeep Kumar. Role of coping strategies in adopting 4G mobile service: A multianalytical approach. (Prof. Uma Sankar Mishra), Department of Management Studies, Siksha O Anusandhan University, Bhubaneswar.

6. Nagar, Dixita Jayantilal **An empirical study on** customer satisfaction of mobile banking services with

respect to Gujarat Region. (Dr. Viral Bhatt), Department of Management, Gujarat Technological University, Ahmedabad.

7. Onahring, B D. Employees job satisfaction, commitment and entrepreneurial intention in hotels of Manipur. (Dr. Kh Devananda Singh), Department of Management, North Eastern Hill University, Shillong.

8. Poturaju, Vandana Nageshwararao. Factors shaping an individual's learning curve regarding stock trading strategies. (Dr. Nilam Panchal), Department of Management, Gujarat University, Ahmedabad.

9. Sarkar, Lipika. Developing e-marketing web portal for small and medium manufacturing enterprises in Assam. (Dr. Bimal Debnath), Department of Management, North Eastern Hill University, Shillong.

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7. Revanna, B. Karnataka Rajyada Gadi Jillegala Shala shikshnada swarupa mattu savalugalu: Ondu samajashasthriya adhyayana (Visheshavagi Chamarajanagara Mattu Ballari Jillegalige Sambandhisdante). (Dr. Rajendraprasad N L), Department of Sociology, Vijayanagara Sri Krishnadevaraya University, Ballari.

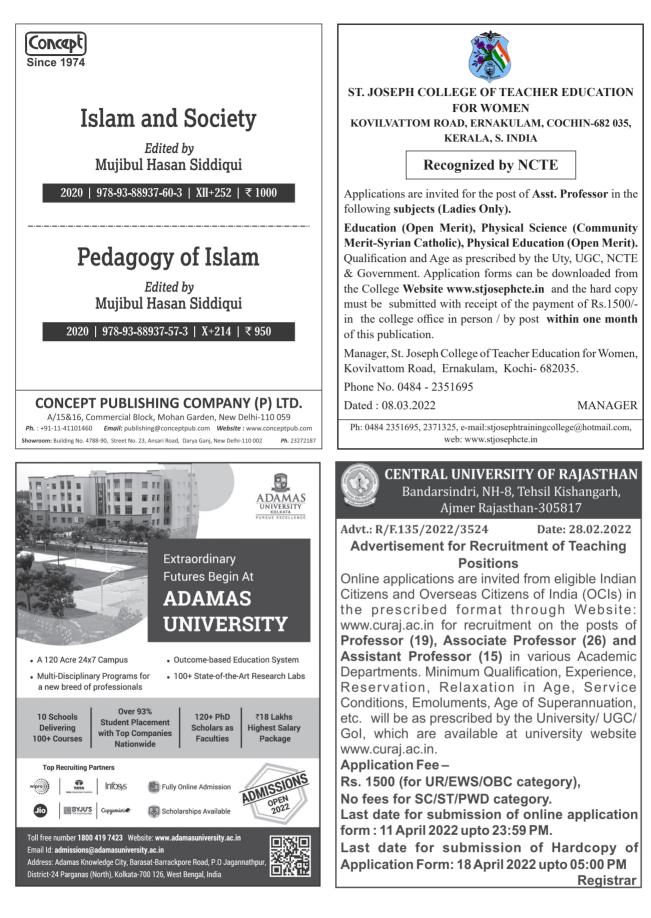
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Programme	Mode of Application	M.Tech Admission portal opens	Portal closes on the given last date	Website
M.Tech (Regular)	Online	18.03.2022	22.04.2022 (at 23.59 hrs.)	http://mtechadm.iitm.ac.in
M.Tech (Sponsored)				https://mtechspons.iitm.ac.in

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Date: 13.03.2022

Deputy Registrar (Courses)



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The Council of Scientific and Industrial Research (CSIR) invites nominations for the Shanti Swarup Bhatnagar (SSB) Prizes in Science and Technology for the year 2022. The SSB Prizes are to be given for research contributions made primarily in India during the past five years. The age of the nominee for the SSB Prize 2022 should not be more than 45 years as of 31 December, 2021.

The SSB Prizes are awarded for notable and outstanding research, applied or fundamental, in the following disciplines: 1) Biological Sciences 2) Chemical Sciences 3) Earth-Atmosphere-Ocean-Planetary Sciences 4) Engineering Sciences 5) Mathematical Sciences 6) Medical Sciences and 7) Physical Sciences. The SSB Prize carries a cash award, a citation, and a plaque for each scientist selected for the award.

Nominations addressed to Scientist Incharge – SSB YSA Unit, CSIR HRDG New Delhi must be submitted in the prescribed format along with reprints of significant publications of the last 5 year's period via e-mail to **ssb@csirhrdg.res.in** on or before **31**<sup>st</sup> **March 2022**. No hard copy to follow. Please visit **www.csirhrdg.res.in** for further details and nomination format. March 14-20, 2022

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