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Educative Assessment of Online Teaching during COVID-19 Pandemic

Bhanu Varma* and Rabinder Henry**

The COVID-19 pandemic necessitated rapid adoption of educative technology across the world. This has impacted academic delivery, academic administration and academic assessment. The initial days of the pandemic forced Higher Education Institutions (HEIs) to adopt creative online delivery and educative management. In order to assess the outcomes – especially the online mode of delivery, an educative audit process has been implemented as part of this education quality improvement program. This is generally defined as Educative Assessment.

The process of evaluating educational outcomes with respect to classroom and online mode lecture delivery include all related academic processes such as examinations, evaluations and administration. These analyses are performed using data collected in real time processes. The Quality Improvement Program for educative audits has been implemented at ATLAS SkillTech University (ASU), Mumbai over four semesters. This article provides a brief sketch of the experience of educative audits implemented at ATLAS SkillTech University (ASU), Mumbai.

The process started with a quantitative discussion with teaching faculty members and other stakeholders to identify key parameters for the measurement of teaching and knowledge delivery. In keeping with standards followed in the service and manufacturing industries, where a customer or a user is considered to be one of the main stakeholders, it was agreed that students would be the equivalent stakeholder in a HEI. The evaluation parameters that could potentially create a positive or negative impact on the student's behaviour or experience in a class while learning, has been included in the assessment process. These processes have been measured with specific empirical values. The measured outcomes have been shared with the respective faculty member as feedback. This is intended to improve the quality of teaching and classroom efficacy (*https://asq. org/quality-resources/auditing)*.

The parameters were classified into absolute basic requirements (class hygiene), opening remarks, recap of the previous session and expected outcomes from the current session (Setting the context) and usage of diverse pedagogical methods in teaching while engaging with students (Knowledge Delivery and Connect). The impact that the delivered lecture and the students' experience along with their interactivity have been measured to improve efficacy of faculty members within the classroom. Different weights for each parameter

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are part of the total rubrics while measuring these parameters, in order to arrive at a rational score using reasonable expectations.

The parameters and the rubrics were part of a comprehensive evaluation form. The faculty members were appraised about the parameters and the processes. Evaluation schedules were arrived at on a weekly basis. The random evaluation process was aided by the academic coordinators and the evaluation experts. The evaluation expert would usually join these randomly identified classes and be a silent observer. The initial observations, showed almost 100% on-time start of lecture sessions by the faculty members. Similar, improvements were observed with respect to classroom hygiene and other parameters.

During the process, the faculty members were encouraged to use diverse and varied teaching aides and tools. This segment was weighted highest due to the key impact it would have on a teaching session. Usage of audio/visual resources, case studies, simulations, story-telling, etc. and other similar teaching methods garnered better scores. These enhanced retention of concepts and knowledge by the students as reflected in the outcomes *(https:// asq.org/quality-resources/auditing)*.

The evaluation expert would thus measure each lecture session, based on the rubrics. The form would capture observations in the form of detailed notes on what transpired in class. The form also captured the level of 'Digital Quotient' that was demonstrated in the session, which were conducted online. Utilisation of digital tools in online classes were expected to maximise the impact of such sessions. Hence, they were encouraged to use Google Class Rooms for dissemination of information and general engagement of students, use tools such as White Boards, digital survey or quiz modules such as *Mentee.com,* etc. An evaluation expert would cover three to four sessions each day.

A robust methodology of conducting the Quality Audits on a regular basis, has been implemented. At the end of each day, detailed feedback would be shared by the evaluation expert, back to a select group of stakeholders belonging to various departments. This feedback would carry brief details of the session, such as the topics discussed, concepts delivered, resources/pedagogies used, unique strengths of faculty members, areas of improvements and the numerical score computed for the session.

The feedback was shared with the respective faculty member by the Dean of the School. The faculty members were expected to implement the measured outcomes through necessary changes to be brought about in their classroom delivery. The implemented changes have been evaluated on a continuous assessment basis with the aim of identifying implementation of earlier feedback and documentation of improvements observed. In addition, random students would also be interviewed/ surveyed to document student perceptions on their experience in class. Composite feedback would then be shared with the faculty member documenting the entire process and their final comments and plans. This has enabled establishment of a closed-loop quality improvement process to measure Knowledge Delivery mechanism within the University.

ATLAS SkillTech University has been experimenting with online mode delivery since 2017. This enabled ASU to be amongst the first (trailblazed) HEIs to embrace the latest in technological and digital offerings. ASU was the first in India to intuitively go digital, as early as 16th March, 2020 — a week before the national lockdown was announced. The lectures transitioned online seamlessly and proactively to ensure better utilisation of time for students, thereby acknowledging the value of their time. The Quality Improvement Program just ensured high delivery standards and allowed to improve the knowledge delivery mechanism.

We also believe that diverse ideas and thoughts, contribute to an enriching learning experience. Accordingly, lecture sessions at ASU use discussions – individual and in groups, debates, group projects, etc. with the intention of improving levels of interaction between faculty members and students and also between peers to enhance learning experience.

Process of Evaluation/Measurement

Quality of any transaction is usually measured using two parameters:

- Adherence to Plan
- Efficacy of Delivery

Adherence of a parameter is measured using Yes/Ok/No - Yes for something that has been adhered

to fully, Ok for partial adherence to a norm and No for non-adherence.

The percentage of Yes to the total numbers in the parameters, measures the Overall Adherence Score. This is non-subjective and easier to measure.

Efficacy of delivery on the other hand, is more complex and subjective in nature. It evaluates faculty members and their skills in a more qualitative way. The ability of the faculty member to effectively communicate the core message of the topic to students, such that the underlying learning outcomes are delivered, within the stipulated time allotted for it, getting students to debate and discuss on the way, all form a part of this efficacy measurement.

Using inputs arrived at from both - Adherence and Efficacy, a Composite Measuring Technique has been devised, which then becomes the Overall Quality Score for the faculty member. This is depicted as a percentage score for each session. The feedback system, as explained earlier, helps ensure that knowledge continues to be delivered well and high standards are maintained.

Parameters

The evaluations were based on 12 parameters grouped under five major categories namely 1) Classroom Hygiene, 2) Classroom Context 3) Knowledge Delivery and Connect 4) Efficacy of faculty members, and 5) Digital Quotient.

Results and Analysis

The evaluation expert has assessed 271 lecture sessions. These sessions include lectures on Management, Media and Advertising and Culinary Arts Programmes. Some of the important results are being discussed here.

Figure 1: Adherence Score
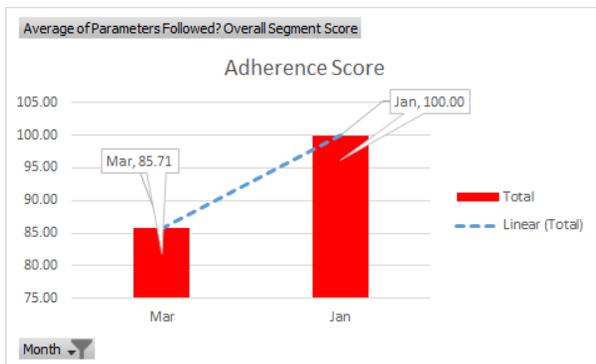
Over the past year, we have been able to standardise our approach to Knowledge Delivery and demonstrate good improvements on internal teaching performance. This is shown in Figure-1.

It can be observed from Figure-1 that the adherence to simple hygiene parameters has increased from 86% in March, 2020 to 100% in January, 2021. This shows a qualitative improvement of 16% (Varma, 2022). Another important result obtained for all 271 sessions is Teacher – Student interactivity. The average of these sessions is shown in Figure-2.

Figure-2 : Interactivity Score
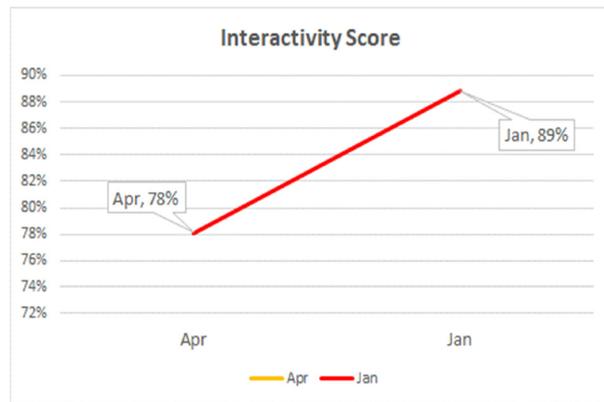
It can be observed from Figure-2 that the levels of interaction between the students and the teacher have increased by 14% between April, 2020 and January, 2021. Similarly, monthly averages have been estimated. A sample of monthly average analysis is shown in Figure 3.

It can be observed from Figure-3 that the monthly quality has increased by 25% within the span of 9 months. Similarly, other parameters have been evaluated for every session, every faculty and every course. Considering the limitation of words, only summarised results have been discussed here (Varma, 2022).

This quality improvement scheme has helped students with a variety of tools to learn, thereby making the learning process simpler and effective. At the same time, the process encouraged the faculty members to adopt more innovative pedagogical methods in their teaching. It has been consistently observed and also reflected in the empirical data that the faculty members improved in each session and thereby increasing their interactivity and

Figure 3 : Monthly Quality Scores
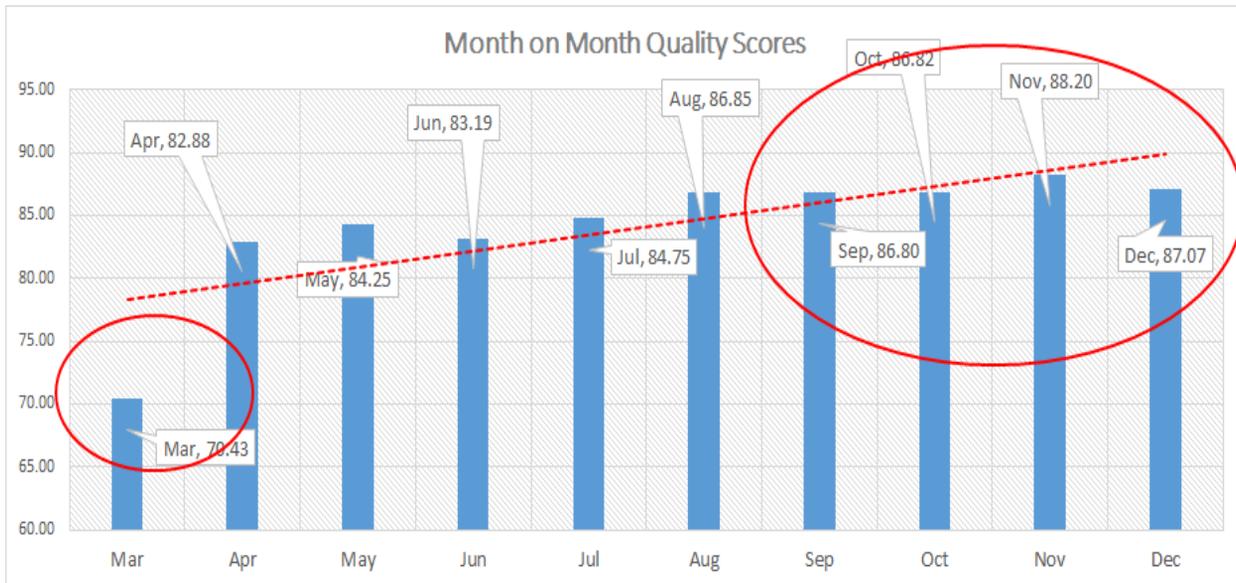
connectivity with students on one-on-one basis or in groups. A visible change has been observed in the student community through cross-pollination of ideas, opinions, suggestions, etc. based on increased interactivity by the teacher in the classroom.

Another important outcome of this audit process has been the identification and collation of good practices observed and documented over time and through multiple sessions. The observed good pedagogical methods have been imparted to the faculties through concurrent faculty development programmes. Such customised knowledge assessment mechanisms has enabled ASU to be at the forefront of hybrid and blended learning pedagogy.

Conclusion

The HEIs are vested with huge responsibilities – those of ensuring correct dissemination of knowledge to the next generation of citizens of a country while grooming their personalities and building a strong nation. In this endeavour, the content being imparted and the manner in which it is shared – both carry importance in equal measures. While the content shared forms the base for a well-informed student, how the knowledge has been imparted ensures better comprehension and long-term retention of the same. This could drastically help students develop and retain good skills as they enter the work force, positively impacting the economy, soon after they finish their education.

In a fast-changing digital world, HEIs carry the onus to prepare students for fresh challenges. They have the responsibility to meet and exceed student learning expectations and perceptions. In such a challenging setting, the Knowledge Delivery Measurement practices being recommended through this document, could go a long way in setting and standardising teaching practices in HEIs. If implemented across other HEIs, the checks postulated here could potentially help raise the bar for teaching and learning experiences in Indian Universities, leading to improved international student admissions and overall improvement in institutional rankings.

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Indexing and De-indexing of Journals in UGC CARE List: A Critical Commentary

Ramesh Pandita*, Meenakshi Koul** and Shivendra Singh***

Research and teaching are the fundamental activities of higher education institutions across the world and so is true about India. But, over the years higher education institutions in India have somewhere failed to maintain the balance between the two, with the result a steady decline is being observed in the research activities in higher education institutions both in terms of quality and the research output of institutions. Given the fact, the need was felt to raise the standard of research both in terms of quality and to increase the research productivity. Accordingly, the University Grants Commission (UGC), the highest governing body of higher education in India observed that faculty members in higher education institutions have to raise the bar of research, and to achieve this objective UGC came up with the idea of linking the career advancement of faculty members of higher education institutions with their research activity. As per UGC regulations 2010 and 2016 (4th Amendment), faculty members working in higher education institutions are required to achieve a certain minimum API score under category-III in their research area on annual basis for the period mandatory to move to the next level or grade (UGC, 2010, 2016). As per UGC notifications issued in this regard from time to time, faculty members working in higher education institutions of the country are required to publish research results in UGC recognized research journals. These UGC-recognized journals were initially known as UGC-approved journals and were later changed to the UGC CARE List of Journals which is being updated annually.

The frequent indexing and de-indexing of research journals in the UGC CARE list of journals have raised lots of questions over the functioning of the CARE screening committee for including dubious and predatory research journals in the CARE list. This frequent indexing and de-indexing of journals have marred the career advancement of faculty members in its own way. It is being observed that by the time a faculty member claims API score for a research article published in a UGC CARE listed journal, the journal is de-indexed and to prove the same to the institutional screening committee become equally difficult in absence of preservation policy/digital archive of UGC CARE listed journals notified from time to time. Even at times for the want of evidence, faculty members not only lose the claimed score but their promotion also gets delayed and so are faculty members declared ineligible for promotion to the next grade till the time he/she attains the minimum eligibility score required for the purpose.

Faculty members received this decision of UGC as publish or perish dictate. The spin-offs of the UGC decision which led to other allied problems include the unprecedented growth of dubious and predatory research journals, falling research standards, and more. The UGC CARE list of journals is inconclusive, which is still struggling with frequent indexing and de-indexing of journals. Thereon, the institutional hypocrisy in recommending dubious and predatory research journals for inclusion in CARE List speaks about the non-seriousness of individual institutions to raise the bar of research quality. The non-availability of earlier UGC approved list of journals on the CARE portal not only questions the archiving policy of such lists but is also being seen as a deliberate attempt to cover the follies of UGC. All this and many more things have been discussed threadbare to reflect on the pros and cons associated with the linking of research with the career advancement of teachers.

Linking Research with Career Advancement

Although, the basic idea of linking research with career advancement of teachers was to promote research activities in higher education institutions across the country and over the years the idea has been translated into a working reality, whereby it has become a well-established practice across the higher education institutions to assess the research contribution of a faculty member while promoting him/

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her to the next stage of career advancement. Linking research with career advancement of teaching faculty received a mixed response from all the stakeholders including the teaching and research community. If on one hand the proposed step was seen as a way to promote the research activity among higher education institutions across the country, on the other hand, another section of academicians criticized the same for two main reasons. One, teachers and academicians who are not interested in research activities shall be forced to research for the career's sake, two the forced research activity will be more quantitative than qualitative. Given the fact, the idea of linking research with the career advancement of a faculty member instead of working as a game-changer in promoting research activities across higher education institutions of the country turned out panicking and pressurizing the faculty members of their promotions or increments getting delayed if they won't indulge in research activities.

Contrary, the idea should have been the other way round viz., granting out-of-turn promotions, providing research incentives, or extending other benefits in form of additional increments and more to the exceptional researcher, especially those publishing in SCOPUS and WoS indexed research journals.

Publish or Perish Dictate of UGC

As per 2010 and 2016 regulations of the University Grants Commission (UGC) of India, research was declared an important component in an appointment and career advancement of teachers in higher education institutions (both universities and colleges) (UGC, 2010, 2016). It is an accepted fact that indulging in research activities or undertaking research depends solely on the individual research interest of a person and for that matter a faculty member. If a teacher is interested only in teaching and not in undertaking research and thereby forcing one to do what one is not interested to do is bound to ruin and thwart the real purpose of undertaking a research activity. This decision of UGC was received by the teaching community of the country more or less as publish or perish dictate. There is nothing wrong with promoting research activity among faculty members of higher education institutions, but promoting research through pressurizing tactics by linking research to promotions or increments is improper and unacceptable. This publish or perish dictate resulted in teaching faculty to get indulged in

publishing research results through dubious means, thereby instead of improving the research scenario of the country in general and higher education in particular, the state of research started further falling.

The decision of UGC to link the research activity of a faculty member with his/her career advancement appeared hastily taken and no attention was paid to the aspects like maintaining and producing quality research results. Without giving due thought to pros and cons associated with publish or perish dictate consequently resulted in producing poor research results. This forced research activity somewhere pushed the research standard of the country to reach its lowest ebb, which otherwise was already under the scanner and was being questioned by the global research community for its poor quality. The poor research results produced with a half-hearted effort by faculty members not interested in research, in turn, got published in poor, sub-standard, and predatory research journals. In fact, with the coming into being of 2010 UGC regulations, the market of predatory research journals in India started flourishing and did brisk business by asking researchers to pay Article Processing Charges (APC), which the forced researcher paid happily and so did India attained the distinction of becoming the home of world's largest predatory journal publishers.

Unprecedented Growth of Predatory Journals

The menace of predatory journals is looming large over the academic and research world, whereby researchers are robbed of their hard work by the predatory research journal publishers. Post-2010 UGC regulations, a sharp surge was observed in the predatory journals across India. Predatory journals solely aim to make money from the researchers in the name of Article Processing Charges (APC) and publish research articles without reviewing within few days of their submission. In some cases, the research articles are published even within 24 hours of their receipt. The terms predatory journals and predatory publishers were first coined in 2012 by Jeffery Beall, Librarian at the University of Colorado, Denver in his article published in Nature News (Beall, 2012). In a study to assess the growth of research journals in India, it was observed that more than 15000 research journals were introduced in India from 2005 to 2014 and 83.02% of these journals were introduced post-2010, the year UGC introduced new regulations linking research with

the career advancement of faculty members (Pandita, Koul and Singh, 2017)**.** The researchers also observed that during the period of study, research journals in India grew at an average of 31.44% per annum. This reflects the state of journal publishing in India, which has become the den of predatory publishing.

Apart from Article Processing Charges (APC), there are lots of other features which can help a researcher or author to identify a predatory journal. These journals are mostly assigned names alike to some other reputed research journals published in the same subject field. Predatory publishers intentionally put grammatical or spelling mistakes in the journal website, use blurred images and logos, solicit authors to submit articles through emails, indexing is missing, publish research articles within days of their submission without review. Names of well-known academicians and researchers with slight spelling changes are shown in the editorial boards and more to entice the researchers and also don't have a long-term preservation policy. All these and many other similar characteristics can help a researcher in identifying a predatory research journal. Predatory journals are found all across the world; however, the existence of such predatory journals is more in Asia, Africa, and other under developing countries.

Indexing of Journals

Indexing of research journals with good indexes like SCOPUS and WoS is a practice prevalent across the world. The WoS and SCOPUS are the world's two most popular journal indexes often consulted by institutes and individuals to assess the credibility, authority, and genuineness of a research journal. SCOPUS was launched by Elsevier in 2004 and maintains a list of over 40,000 journals indexed by it all over the world (Elsevier, 2021)**.** Similarly, Web of Science maintains two lists, one for its core collection in which more than 21, 000 journals stand indexed as on date and WoS platform wherein over 34, 000 journals, books, proceedings, and patents are indexed (Clarivate, 2021). Both the indexing platforms are known for the quality parameters they have designed and developed over a period which journal publishers have to abide by and adhere to before applying for indexing a journal. Given the fact, all the research journals indexed in any of the two indexes enjoy a fair amount of reputation among research and scientific community across the world and so do

the research results published in these journals are held authentic, reliable, and qualitative. Given the fact, UGC declared all the research journals indexed in SCOPUS and WoS as genuine and the research piece published by an Indian researcher in general and teaching faculty working in higher education institutions of India in particular in all such journals shall be considered for promotion of teachers under Career Advancement Scheme (CAS).

Contrary, predatory journals have more or less caused havoc in the academic and research circles of the world, whereby it has become increasingly difficult for researchers to distinguish between mainstream and predatory research journals. Indexes like WoS and SCOPUS are handy tools to identify a well-recognized mainstream research journal. Every researcher should ensure that the journal they intend to publish with is indexed in SCOPUS or WoS. The research journals not indexed with such indexes should always be seen with suspicion as a potential predatory research journal and so should researchers avoid to published with any such journals. It is a welcome step by the UGC to include SCOPUS and WoS research journals as the core group of journals for publishing research. Since quality is the sole criteria to publish with a SCOPUS or WoS indexed journal, so is a poorly crafted research article bound to face rejection. Even the rigorous peer-review process of these journals is a real challenge for Indian researchers, especially for those undertaking research in the field of Social Sciences and Humanities.

Research journals not adhering to the quality parameters set by indexes like SCOPUS or WoS are bound to face de-indexing. De-indexing of research journals is a very common practice, each year a good lot of research journals get de-indexed for violating publishing norms.

UGC Approved Journals

UGC's decision to link research with the career advancement of teachers received criticism from different quarters including faculty members. This move of UGC instead of promoting and improving the quality of research, in turn, deteriorated the research scene, as majority of the faculty members got indulged in producing and publishing sub-standard research. It was also observed that all this has somewhere led faculty members to publish in dubious and predatory research journals. Realizing the folly, UGC decided

to compile a UGC-approved list of journals and the research articles published in all such journals only shall be considered for the career advancement of faculty members. It's been since 2016 that UGC started compiling its own list of journals on annual basis, seeking recommendations from individual institutions about the inclusion of journals in the approved list of UGC journals. UGC constituted a standing committee to examine the research journals submitted by Universities for inclusion in the UGC list of approved journals (UGC, 2018).

In the beginning, UGC did not seem certain as to where from begin to compile the list of journals, as such wrote to higher education institutions to submit cum recommend research journals fit to be considered for career advancement of faculty members. All this ultimately resulted in including all dubious and predatory journals in the UGC-approved list of research journals. This practice continued till 2018 and each year UGC had a new list of approved journals. Inclusion of dubious and predatory research journals in UGC approved list of journals received widespread criticism from different quarters including academicians, researchers, and other faculty members and so did UGC paved the way to compile UGC CARE (Consortium for Academic and Research Ethics) list of research journals (UGC, 2019c).

The failure of UGC-approved Journals can be owed to Institutional hypocrisy. The UGC list of approved journals was based on the research journals submitted/recommended by higher education institutions of the country for considering career advancement of faculty members. While submitting the list of journals, the individual institutions took due care to protect the interest of each faculty member and recommended cum submitted all such research journals in which faculty members from the respective institutions had published research results, irrespective of research journal being genuine or dubious. This resulted in publishing the first list of UGC-approved journals without any screening or scrutiny, with the result the first list of journals included predatory and substandard research journals. Each year institutions recommended only those research journals for inclusion in the UGC list of approved journals in which faculty members of the respective institution had published research results in the preceding year. This hypocritical practice of institutions resulted in frequent indexing and de-indexing of research journals of dubious and predatory nature. This

frequent indexing and de-indexing of journals if on one hand affected the career advancement of faculty members, on the other hand, faculty members were not sure whether to publish with a particular journal or not, as the journal indexed today may get de-indexed tomorrow.

Introduction of UGC CARE List

This practice of indexing and de-indexing of research journals in the UGC list of approved journals raised questions over the credibility of the standing committee. Ultimately UGC established Consortium for Academic and Research Ethics (CARE) in its 536th meeting held on November 14, 2018, and entrusted the responsibility of Journal Analysis and its maintenance to Savitribai Phule Pune University, Pune. UGC in its letter dated November 28, 2018, and January 14, 2019, has elaborated the process for adding new journals. Research journals indexed by SCOPUS and WoS will be included in the CARE List without any analysis (UGC, 2019a). The UGC CARE list of journals is updated regularly on annual basis by seeking inputs from different stakeholders including individual higher education institutions. If an institution deems any research journal fit to be included in the CARE- list and recommends same for inclusion and if found suitable by screening committee is included in the CARE list. In the same way, some journals are removed from the CARE-list either based on receiving a complaint or for some other reasons. In this way, indexing and de-indexing of research journals in the UGC CARE list has more or less become a routine practice (UGC, 2019b).

On account of regular indexing and de-indexing of research journals in UGC CARE list, teaching faculty in higher education institutions all across the country has started facing a range of problems, especially while claiming API score under category-III viz., research component. The biggest problem with the faculty members is that in a particular year they publish research results in a UGC CARE listed research journal, but during the next year or after a couple of years the journal is de-indexed and does not figure among CARE-List journals. So while claiming the research score, faculty members are supposed to provide proof that a particular research article has been published in a UGC CARE list journal. What adds to the vows of faculty members is that neither UGC nor its nodal agency maintains any archive of its CARE-List indexed journals on yearly basis. Research results published in UGC approved research

journals during 2016 or 2017 are non-existent and nor does that list figure anywhere, so as same may be provided as proof that such and such journals used to figure in the approved list during a particular year. Similarly, the appointed nodal agency is focused on revising and updating the CARE list without paying any attention to maintaining an archive of earlier CARE list journals.

There is no issue with the indexing of new research journals in UGC CARE list, but the rate at which concerned nodal agency is de-indexing the research journals on annual basis, somewhere questions the wisdom of the CARE universities, CARE members, and CARE empowered committee. Indexing and de-indexing of a research journal solely depends upon the quality a research journal maintains in publishing research results over a period of time, but de-indexing a research journal within a year of its indexing, in turn, questions the worth of the indexing agency. Still, one can accept and understand such an incident with few journals, but when hundreds of journals are de-indexed within a year of their indexing that too on annual basis means there is something seriously wrong with the indexing agency rather with the journals. A research journal is normally de-indexing for violating the publishing ethics or intentionally downgrading the quality standards. The process to include new research journals in the UGC CARE list of journals has been compiled and is purely based on the list of journals submitted cum recommended by the higher education institutions across the country. To include a new research journal in the UGC CARE list, the recommendation is to be made by the professor or the teaching faculty of the university through institutional IQAC to respective regional CARE University.

Poor Archiving Policy

Needless to mention that faculty members in higher education institutions of India get promotions under CAS after a gap of 6, 5, 4, and 3 years period and the research articles published during this gap period are considered for claiming score, thereon frequent indexing and de-indexing of research journals in the CARE list has made it difficult for researchers to claim the score. As, by the time a faculty member qualifies for promotions under CAS a good number of research journals get de-indexed, thereon to prove that a particular research journal was indexed in the UGC CARE list the moment a particular research result was published in it, especially in absence of an authoritative and authentic archive of such journal list. This poor archiving policy of the UGC-approved journal list has defeated the whole purpose of compiling such lists from time to time. By not maintaining a list of approved journals, UGC can conceal its inefficiency of not being able to handle the whole exercise efficiently, but this inefficiency by no means should cost or ruin the career advancement of a faculty member for his/her no-fault.

Conclusion

Undertaking or indulging in a research activity solely depends upon the interest of an individual faculty member and not something to which an individual can be forced to. Any research activity undertaken with a half-hearted attempt cannot produce quality research results. Quality research results can be produced with strong conviction, commitment and seriousness on the part of the researcher to produce desired results. However, strong motivation can help a great deal in producing great researchers and converting non-serious researchers into serious ones. Material grains and other worldly attainments act as strong motivational forces. Offering out-of-turn promotions, additional increments, preferred postings and more can motivate a faculty member to undertake research and produce quality research results rather than opting for pressurizing tactics to promote research activity. Producing research results is not an end in itself, but publishing the same research results through genuine mainstream recognized indexed research journals legitimizes such findings, gives them greater visibility, and helps such research results reach end-users more efficiently, for whom these results are meant for. There is an equal need to educate faculty members about the existence of dubious and predatory research journals that are hell-bent to rob the researchers of their hard work. SCOPUS and WoS indexed journals form the core group of UGC CARE list of journals and to improve the quality of research, faculty members should be encouraged to publish their research results in such core research journals. Responsibility also rests with the institutions recommending new research journals for inclusion in the CARE list, recommending institutions should ensure that journals recommended are neither dubious nor predatory and so is there need to host a CARE list of journals on the CARE website itself for each year for reference and record, especially while claiming API score for promotional purpose. Substandard

and dubious research journal if any in the CARE list needs to be weeded out at regular intervals of time or as and when complaints are received of existence of any such journal.

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Policies and Programmes Concerning Quality Initiatives in Technical Education

Sameer Babu M* and Arunima Anil**

The attributes of quality in higher education are complex and widely differ within the context. They cannot always be measured and quantified. Therefore, quality is defined as the degree of excellence of the entire educational experiences or the level of goal achievement (Powar, 2005, Delomore & Shaker, 2002, and Harmann & Meek, 2000). In 2005, certain performance indicators like Input Indicators and Process Indicators were identified by the Association of Indian Universities as criteria for assessing the quality of an institution. Input indicators are financial resources, physical facilities, student and staff profiles, etc. and process indicators relate with other components like teaching, research and services (Powar, 2005). These are now being used widely to assess the quality of institutions and programmes.

The first reform for restructuring, strengthening and facilitating technical education in India took up with the setting up of AICTE during 1945 with the objective of maintenance of its standard through its development in a coordinated effort and manner. It assists in planning, monitoring and promoting the technical education system in the country. In addition, National Board of Accreditation (NBA) was established in 1994 which evaluates programmes rather than institutions as its aim to assess the quality of technical education with the analysis of the competence of various programs in Engineering discipline including Polytechnics. Accreditation of programmes was perceived as an imperative parameter for quality assurance. Thus, it strictly monitors whether technical programmes continue to meet its standards or not, according to the stipulated rules and procedures.

Working Group on Higher Education (XII Five Year Plan) 2011, Ministry of Human Resource Development (MHRD) initiated several programmes to ensure quality and bring excellence in Higher Education Institutions (HEIs). One of its prime recommendations was to enhance quality through provision of quality facilities and infrastructure for promoting quality research, appointing quality teachers, etc. It suggests that independent quality assurance frameworks are essential to bring the HEIs to compete with world class institutions as it put forth mandatory and globally valid accreditation standards, quality assurance frameworks and internationalization of education through collaborations as its key strategy.

Ministry of Human Resource Development introduced National Institutional Ranking Framework (NIRF) basically to rank HEIs on various specifications based on teaching, learning and resources, research, professional practice and collaborations, graduation outcomes, outreach activities and Perceptions. Hence, Engineering institutes were ranked based on these parameters (MHRD, Annual Report, 2017). Top 10 engineering institutions in Ranking Framework are presented in Table-1.

Table 1: India Rankings 2020: Top Ten Engineering Institutes

Institutes	Score	Rank
Indian Institute of Technology Madras	89.93	1
Indian Institute of Technology Delhi	88.08	2
Indian Institute of Technology Bombay	85.08	3
Indian Institute of Technology Kanpur	82.18	4
Indian Institute of Technology Kharagpur	80.56	5
Indian Institute of Technology Roorkee	76.29	6
Indian Institute of Technology Guwahati	74.90	7
Indian Institute of Technology Hyderabad	66.44	8
National Institute of Technology Tiruchirappalli	64.10	9
Indian Institute of Technology Indore	62.88	10

Source: National Institutional Ranking Framework, MoE

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Quality Enhancement Initiatives in Engineering Education

As the growing concern about the deteriorating quality of technical education is challenging, over many years several initiatives had been taken by the Union Government to address these quality issues widely. Establishment of National Assessment and Accreditation Council (NAAC) and National Board of Accreditation (NBA) during 1994, and other clear cut policies like framing Technology Vision India 2020 in the year 1996, encouragement of private investment in Professional Sector, including other roadmaps such as Information Technology Action Plan (1998), Science and Technology Policy (2003), granting Deemed University status, setting of National Knowledge Commission for preparing roadmap and allotment of additional funding to technical institutes etc. envision to provide world-class standards to engineering institutions. Besides, curriculum reforms for the provision of greater flexibility, interdisciplinary approach and skill upgradation, encouraging research and collaborations, reduction of the existing gap between industry-academia interaction with better employment opportunities, promoting internships and skill generation paved its path towards quality improvement (Biswas et al, 2010).

In realizing the need for improving the quality of technical education, AICTE has re-vitalized a few quality initiatives such as the conduction of mandatory induction program, curricular revision,

Fig-1: AICTE Quality Initiative Framework

Source: aicte-india.org

examination reforms, compulsory accreditation and broader perspective plans to focus towards outcome-based education (Fig.1). As a result, it has revised and updated the Undergraduate and Post graduate curriculum of engineering education after a longer period. The salient feature of the new model curriculum envisages flexibility in different engineering disciplines by boosting innovation and research, better hands-on experience and opportunities for summer internships.

The examination reforms undertaken by AICTE, strongly signifies to bring profound changes in engineering education, that the examinations being carried out should test both students understanding of concepts as well as skills rather than merely just testing their subject (theoretical) knowledge. Further, for ensuring students to get wider exposure to industry and to imbibe technical, managerial skills and to sharpen their capabilities, endless opportunities for mandatory internships were to be promoted. This will augment the approach of outcome-based learning process and inculcate graduate attributes.

Mandatory accreditation for all the technical institutions to have its programs accredited by NBA was proposed to improve the quality of technical education. Hence, certain quality parameters were set in tune to enable institutions to have NBA accreditation for their programmes. In its long existence, AICTE has implemented various student and faculty development schemes, institutional development schemes, research and innovation development schemes and a few general schemes for rising students' skills, promotion of innovation and entrepreneurship, etc. Student development schemes include providing scholarships or fellowships to pursue higher education, provide opportunities for students to set up start-ups and to engage with small and medium enterprises to carry out internships, etc. On the other, faculty development schemes intents to upgrade the qualification and skills of faculties through training programs and offering research fellowships, etc. Whereas, the institutional development scheme concentrates to equip the technical institutions with sufficient infrastructure, laboratory and other physical facilities.

Schemes for Strengthening and Upgradation

In the backdrop of quality enhancement, several qualitative and quantitative landmark initiatives were launched by the Central Government. University Grants Commission (UGC) and All India Council

for Technical Education (AICTE) tops the ladder to oversee the maintenance of quality of higher education in the country. It is implemented in the form of various schemes, fellowships, financial assistance and other institutional programmes to HEIs. The centrally sponsored initiatives include:

- National Institutional Ranking Framework (NIRF),
- Impacting Research Innovation & Technology (IMPRINT),
- Uchhatar Avishkar Yojana (UAY),
- Global Initiative of Academic Networks (GIAN),
- Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM),
- National Academic Depository (NAD),
- Technical Education Quality Improvement Programme (TEQIP),
- Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT),
- National Digital Library,
- Campus Connect Programme,
- Universities with Potential for Excellence,
- Centre with potential for excellence,
- Special Assistance Programme (SAP), and
- Research Projects etc.

These quality enhancement programs provide an interdisciplinary approach to upgrade the curriculum to bring new innovations in teaching-learning process, impart skills to enhance student's employability and a thorough revision in the existing examination and evaluation systems by the introduction of Choice Based Credit System (CBCS). All these pave way to augment academic standards and quality. There are various schemes which enhance the effectiveness of quality in technical education. These schemes under broad heads are discussed here.

Quality Improvement Programme (QIP)

Right from 1970 onwards Government had taken initiative to launch the Quality Improvement Programme under AICTE, especially to upgrade the expertise and capabilities of faculties at the institutions. It enables the faculty members to acquire higher certification, upgrade their expertise and qualification through scholarship offers and imbibe in them a culture of research and teaching excellence. The main objectives of the QIP includes:

i. Allow faculty members to improve their qualification by offering higher degrees (Masters or Ph.D. degree).

ii. Conduct Short Term Courses to improve their efficiency.

iii. Curriculum Development activities for assisting faculties in classroom teaching and learning

Other major activities under this program specifically include curriculum development and revision, assisting teachers to prepare manuals, teaching aids, resource materials, organizing institutional programs, seminars, workshops and carrying out examination reforms.

Quality Enhancement in Engineering Education (QEEE)

For bringing comprehensive reforms in Technical education, Department of Higher Education, MoE, Government of India has formulated a Committee 'Quality Enhancement in Engineering Education (QEEE) during 2014-15 across various colleges in a phased model to enhance the quality of Indian engineering education and hopefully enables to bridge the quantity-quality gap. It provides a 'Direct-to-Student (D2S)' interactive programme to attend live lectures by eminent professors that open ups students to avail high quality pedagogical resources within their pace. Streaming live lectures, tutorials, live labs, content delivery, enabling bridge courses, and acquisition of additional skills were also part of this quality enhancement program.

RUSA-For Revolutionizing Higher Education in India

Rashtriya Uchchatar Shiksha Abiyan (RUSA) a mission mode centrally administered scheme approved by the Cabinet and Central Advisory Board of Education (CABE) during 2013 is the first attempt of its kind to revamp higher education particularly for enhancing learning, promoting research and innovations in higher education. One of its most spectacular guiding principles lies to provide better quality of standards for State Higher Education Institutions (HEIs) that was mandatorily accredited with NAACs quality assurance mechanism. Its broader objectives include:

- Improve the overall quality, access and equity.
- Enhance quality and excellence by providing academic infrastructure and better teaching-learning environment.
- Minimize infrastructural gaps by upgrading the existing infrastructure.
- Ensure faculty recruitment support and faculty improvement initiatives.
- Facilitate research, innovation and quality improvement as for promoting entrepreneurship activities and employability.
- Strengthen institutional restructuring and capacity building for bringing efficient and effective reforms.

RUSA also prioritizes academic reforms as a key towards imparting better quality education through its attention on academic activities including semester or Choice Based Credit System (CBCS), merit-based admission reforms and curricular revisions at regular intervals, examination reforms with more prudent assessment of student's performance evaluations and end of semester evaluations (RUSA 2.0 Guidelines, MHRD).

TEQIP (Technical Education Quality Improvement Programme)

The three-phased programme launched by MoE stipulate to bring excellence and transformation in Technical education. During 2003, TEQIP phase – I was implemented with World Bank assistance among 127 institutions including NITs, NIFFT, Engineering Colleges and Polytechnics. Subsequently, TEQIP – II (2010 onwards) and TEQIP – III (2017) was shortly introduced for enhancing employability, research and equity. The key activities includes improved governance, provision of training for faculties and staffs, promoting academic excellence, investment in hardware and software, improving non-cognitive skills of students, student career counseling and placement along with increasing interaction and incentives for joint research and collaborations across disciplines *(mhrd.gov.in)*.

Impacting Research Innovation and Technology (IMPRINT)

IMPRINT a national initiative of Government started during 2015 addressed the challenges faced by engineering education. It improvised the need for newer engineering policies to substantiate the backdrops of technical education with the promotion of infrastructural requirements and research.

As its components, ten key areas were identified for innovation, developments and large-scale employment generations. It specifies that industries should purse an inclusive eco-system to address the challenges being faced. The prime motive of the scheme would pay way to define the 'gap' between the available and desired level of manpower, technology and infrastructure readiness. This kind of high end undertakings reaches out to wider magnitude covering pedagogy, teaching, curriculum and technology-benchmarking (imprint-india.org).

Uchchatar Avishkar Yojana (UAY)

Uchhatar Avishkar Yojana aims at promoting innovation and outcome-oriented research in pursue of the needs of the industry. The major concern under it were: -

- Promote innovation with preference to manufacturing industry.
- Spurs innovative mindset among students and faculty of institutions.
- Aims to bridge the gap between academia and industry by bringing con-coordinated actions.
- Strengthens the infrastructure base especially by expanding laboratory and research facilities of technical institutes.
- Finally, support outcome-based research funding.

The collaboration between the academia and industry would normally minimize skill gaps and would decrease unemployability.

Start-Up Policy for Technical Institutions

AICTE–National Student Startup Policy commonly known as NSSP was launched on 2016 with the purpose of creating one lakh technology-based student owned start-ups with the intention of generating million employment opportunities within the next ten years. It also assists to develop a vibrant entrepreneurial ecosystem that helps to promote huge inter-institutional partnerships within technical institutes.

Pradhan Mantri Kaushal Vikas Yojana for Technical Institutions (PMKVY-TI)

The particular scheme started during 2016 with the aim of training more than ten lakhs unemployed

youth mainly the engineering graduates with imparting Engineering skills so as to make them ready for employability and to meet the requirements of the industry via AICTE approved institutes including Polytechnics during off college hours. In recent times, skill generation is focused as a major area for quality improvement. The main reason behind this as the huge number of student's passed out finds unable to get a suitable job that matches their qualification. Unlike other schemes, it also cracks to address the lack of academia-industry linkages.

National Employability Enhancement Mission (NEEM)

The program offers practical training to develop employability among the youth enrolled in any of the graduation or diploma courses in technical or non-technical streams. Moreover, the program also gave a chance for those students who had discontinued their studies. Absence of sufficient skills and mere theory-based learning apart from having practical oriented knowledge is the biggest challenges faced by engineering education today. Issues of the same can be minimized to a greater extent by undertaking such kind of programs.

Project Centre for Technical Education (PCTE)

Setting up of Project Centers within the University premise enables full-fledged facilities for students to undertake hands-on experiences in their learning processes. Government spent huge amount in terms of the beneficiary institute in this regard. This addresses the lacunae of institutes with insufficient resources and infrastructural facilities to excel in academic standards. It not only satisfies physical requirements but also promote students overall educational attainment.

The Central Government had implemented some other Schemes and Programs for the expansion and upgradation of technical education. A few of the important scholarships/skill development programs are listed Table-2:

The institutional and government initiatives emphasize the obligation to tackle the pros and cons of technical education and it also envision to manage the present education at par with international standards (Biwas et al, 2010). Many of these initiatives taken up during the past few years showcase the alarming apprehension of the diminishing quality of technical education. It demands the need for improving the quality of engineering education with innovative follow ups. The implementation of these policies and programs laid a thorough foundation for reviving the technical sector to envy strong determination of academic standard and in achieving anticipated outcomes.

Conclusion

All the schemes broadly envisage to strengthen the quality of technical education in terms of its improvement in numerous areas visa-viz infrastructure, developing faculty competence, improving quality of teaching, overall student's learning outcomes, research and collaborative activities and rising

Table 2: Other Measures Undertaken at a Glimpse

Schemes	Specific Objectives
AICTE'S Scholarship Schemes	• Scholarship for pursuing Post Graduate courses for GATE qualified students. • Other tuition fee waivers for low income students. • Scholarship to pursue research in highly reputed institutions like CSIR/DRDO
PRAGATI	Envisages assistance to Girl's advancement in the form of scholarships to pursue technical education.
Skill Development for Socially and Economically Backward Section	Aimed at empowering backward students with special skill trainings and career opportunities.
National Mission on Education through ICT (NMEICT)	To leverage the possibilities of ICT through interactive content creation over online mode.
SWAYAM	Initiated for taking advantage of best teaching learning resources covering all higher education subjects

Source: Annual Report 2016-17, MHRD

employability among engineering graduates. Whereas, the challenges confronting engineering education profiled that many of the efforts to improve the quality fails due to poor resources, both physical and human in most of the institutions, constraints in the existing teaching-learning processes, progressive closure of colleges for maintaining substantial standards and lower employability rate of students. Initiation of mere policies, programmes and huge investment alone will not find a better way ahead unless and until it is strictly monitored, evaluated and executed in a proper and time-bound manner.

The excellence of any quality assurance programs consequently should reflect upon the holistic approach with emphasis in innovations, training, research, development and industry-academia interactions. The implementation of faculty development programmes, leadership development programmes, employability and skill enhancement programmes and several other schemes intends to restructure and effectively maintain quality in the technical education system but on the contrary formidable barriers continue to hinder the process. Addressing these gaps between the policies and practicalities demands a matter of concern.

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Widening the Scope of MSMEs : Some Perspectives

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The Micro, Small and Medium Enterprises (MSMEs) Sector has been contributing significantly to the expansion of entrepreneurial endeavours through business innovations. The share of the Gross Value Added (GVA) of MSMEs in the country's Gross Value Added (GVA) is around 32 per cent, and in the Gross Domestic Product (GDP) close to 30 per cent in recent years.

The present NDA Government at the Centre is keen to raise the MSME sector's contribution to Gross Domestic Product (GDP) from the present 30 per cent to 50 per cent. The sector's contribution to exports is planned to be raised from the present 48 per cent to 60 per cent. In terms of job creation, the present level is 11 crore. It is planned to increase this by five crore new jobs, with the enlargement of scope of the sector, as well as new directions planned to be pursued in the next few years. The revised definition of MSMEs will encourage exports by the companies as exports turnover has been excluded from the aggregate turnover for eligibility purposes, resulting in more companies qualifying for MSME status. Moreover, the increased limit on investment in plant and machinery, and equipment for medium companies, from Rs.10 crore to Rs.50 crore, will encourage adoption of more advanced technology in manufacturing which is the key to competitiveness in exports.

The 'micro' in MSME space is integral to India's inclusive growth, based on its contribution to job creation and national output, and also by sheer dominance of economic activity. The Indian MSME space, comprises 63.39 million enterprises with employment generation of 11.1 crore as per data revealed by the National Sample Survey – NSS-73rd round conducted for the reference year 2015-16. Coverage of enterprises in this Survey is as per the definitions in vogue till recently. The enterprises covered are manufacturing, trade, other services, and non-captive electricity generation and transmission in rural and urban areas.

The MSME space which includes both formal and unincorporated or informal entities, is dominated by the 'micro' segment. Micro enterprises account for 99 per cent per cent of 63.39 million enterprises, as against the global average of 65 to 70 per cent for emerging economies. Higher number of micro enterprises exhibit the potential for growth and graduation of these enterprises with a facilitative environment. The MSME space has been gradually growing, as the number has increased from 36.17 million in 2006-07, to nearly doubled by 2015-16. However, despite the increase in numbers, the share of micro enterprises has remained constant at 99 per cent. It only shows that these enterprises are not able to scale up.

There are two distinct features noticed in the analysis. First, rural- urban share is almost equal (51 per cent and 49 per cent, respectively). The share of manufacturing, trade and services accounts for 31, 36 and 33 per cent., respectively. 96 per cent of enterprises are proprietary concerns. Positive side of this is that women's ownership of enterprises is much higher in case of micro enterprises at 20 per cent, as compared to 5.26 per cent and 3.27 per cent in small and medium enterprises. MSME's contribution to jobs is 111 million with micro enterprises accounting for the bulk of 107 million or 97 per cent. The broad activity-based job creation is equally shared by manufacturing, trade and services, as also rural-urban split. A logical corollary of the predominant share of micro enterprises is that jobs created per enterprise remain low.

MSMEs in Priority Sector Lending

Reserve Bank of India (RBI) guidelines on priority sector lending specify lending to MSMEs as an eligible activity under the definition of priority sector. Further to focus on micro enterprises, the RBI has specified a sub-limit of 7.5 per cent for micro enterprises under the priority sector. In 2018, the RBI made two relaxations in counting eligible loans to MSMEs as priority sector. In February 2018, the RBI mandated that there will be no credit cap in lending to manufacturing MSMEs and, later extended it to the

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service sector MSMEs also. Earlier, to be in reckoning as priority sector, there were caps based on category of MSMEs. For example, loans up to Rs.25 lakh for micro enterprises in the manufacturing sector, and Rs.10 lakh for service enterprises in the service sector, could only be considered as priority sector. Though this relaxation is not meant for micro enterprises alone, it will benefit the sector as a whole.

The demonetisation announced in November 2016 led to hiccups for MSMEs, especially those relying on cash as the primary medium of operation, though the overall business environment was also impacted. The RBI recognising that this would lead to loan defaults, relaxed the criteria for the NPA (Non-performing assets) classification of MSME loans by banks and NBFCs (Non-banking finance companies). During its monetary policy announcement in February 2018, the RBI announced that the GST-registered (Goods and Services Tax-registered) MSMEs, with aggregate standard exposure of up to Rs.25 crore, will now get 180 days to make loan repayments. Earlier, the limit was 90 days and 120 days for banks and NBFCs, respectively. While providing relaxation, the RBI also ushered in a nudge towards greater formalisation of the sector, as the facility is available only to GST registered MSMEs.

This paper written with a motive to create awareness in academia regarding the MSMEs is divided into two parts: Part I and Part II. Part I deals with recent developments in the country resulting in economic slowdown, particularly after COVID-19 pandemic, and ReSTART strategy being implemented for the MSME Sector in the country, and in Andhra Pradesh. Part II deals with progress and performance of MSME sector.

Part I: Recent Developments in MSMEs with COVID-19 Relief Measures

Recent Developments in MSMEs with COVID-19 Relief Measures through improving liquidity for their early Revival, and as a Stimulus Package for the Sector are presented in this part of the article. Different Exhibits present different aspects of the developments.

Table 1--Definition of MSMEs as per the MSMED Act, 2006 (valid up to end-June 2020)

MSME Category	Manufacturing Enterprises – Manufacturing, processing or preservation of goods – criterion: investment in plant and machinery (10 lakh equal 1 million, & 1 crore equals 10 million))	Service Enterprises – providing or rendering services - criterion: investment in equipment (10 lakh equal 1 million, & 1 crore equals 10 million))
Micro Enterprise	Not exceeding Rs.25 lakh	Not exceeding Rs.10 lakh
Small Enterprise	More than Rs.25 lakh but not exceeding Rs.5 crore	More than Rs.10 lakh but not exceeding Rs.2 crore
Medium Enterprise	More than Rs.5 crore but not exceeding rs.10 crore	More than Rs. 2 crore but not exceeding Rs.5 crore

Source : Websites of Ministry of MSME, GoI, and Reserve Bank of India: www.msme.gov.in; and www.rbi.org.in

Table—2 Revised Definition of MSME Effective from 1ˢᵗ July, 2020

MSME Category	Criteria for categorising enterprises covering manufacturing, services, and trade effective from July 1, 2020 (one crore equals 10 million)
Micro enterprise	Investment in plant and machinery or equipment does not exceed Rs.1 crore, & turnover does not exceed Rs.5 crore.
Small enterprise	Investment in plant and machinery or equipment falls above Rs.1 crore, but does not exceed Rs.10 crore, & turnover above Rs.5 crore but does not exceed Rs.50 crore.
Medium enterprise	Investment in plant and machinery or equipment falls above Rs.10 crore but does not exceed Rs.50 crore, & turnover above Rs.50 crore, but does not exceed Rs.250 crore.

Source : Websites of Ministry of MSME, GoI, and Reserve Bank of India: www.msme.gov.in; and www.rbi.org.in

Exhibit-I : Revision of Definition of MSMEs

Till June 2020, MSMEs registered with concerned government agencies have been defined in terms as investment plan in machinery, as mentioned in Table -1. Investment figures mentioned in Table –1 refer to the original value of the items as and when purchased. This definition mentioned in the Micro, Small and Medium Enterprises Development Act, 2006 has been in vogue from 2007. From 2018, there have been discussions regarding the criterion to be followed for revising the MSME definition by using annual turnover or employment of the enterprises as the criterion. The Union Ministry of MSME has issued the notification in June 2020; and this is followed by a circular issued by Reserve Bank of India.

The revised definition is given in Table—2. In this definition which has become operational from July 1, 2020, categorisation into manufacturing and services is not be there, It follows only composite criterion for the entire MSME Sector – for the three categories of Micro, Small and Medium Enterprises - criteria: investment in plant and machinery or equipment, and annual turnover of the enterprise, applicable for manufacturing, service, and trade or any other relevant category. This definition has been considered progressive and suitable because of the implementation of Goods and Services Tax (GST) from July 2017. Under the new Tax regime, turnover details of enterprises are being captured by GST Network (GSTN), and turnover declared by GST registered MSME units can be easily verified through GSTN. Hence, turnover based definition would be transparent, progressive, and easier to implement. It would also help in removing the bias towards manufacturing enterprises followed in the existing definition, and improve the ease of doing business.

Operational Guidelines for Computation

Composite Criterion of Investment And Turnover for Classification

a. A composite criterion of investment and turnover shall apply for classification of an enterprise as micro, small or medium.

b. If an enterprise crosses the ceiling limits specified for its present category in either of the two criteria of investment or turnover, it will cease to exist in that category, and be placed in the next higher category; but no enterprise shall be placed in the lower category unless it goes below the floor limits specified for the present category in both the criteria of investment as well as turnover.

c. All units with Goods and Services Tax Identification Number (GSTIN) listed against the same Permanent Account Number (PAN) shall be collectively treated as one enterprise, and the turnover and investment figures for all such entities shall be seen together, and only the aggregate values will be considered for deciding the category as micro, small or medium enterprise.

Calculation of Investment in Plant and Machinery or Equipment

a. The calculation of investment in plant and machinery or equipment will be linked to the Income Tax Return (ITR) of the previous years filed under the Income Tax Act, 1961.

b. In case of a new enterprise, where no prior ITR is available, the investment will be based on self-certification of the promoter of the enterprise, and such relaxation shall end after the 31st March of the financial year in which it files its first ITR.

c. The expression, plant and machinery or equipment of the enterprise shall have the same meaning as assigned to plant and machinery in Income Tax Rules, and shall include all tangible assets (other than land and buildings, furniture and fittings).

d. The purchase (invoice) value of plant and machinery or equipment, whether purchased first hand or second hand, shall be taken into account excluding Goods and Services Tax (GST) on self -disclosure basis, if the enterprise is a new one without any ITR. For subsequent years, the depreciated value is taken into account, and not the original purchase price.

e. The cost of certain items specified in the Explanation 1 in subsection (1) of section 7 of the Act shall be excluded from the calculation of amount of investment in plant and machinery.

Calculation of Turnover

Regarding calculation of annual turnover, operational guidelines are as follows:

(i) Export of goods or services or both, shall be excluded while calculating the turnover of any enterprise whether micro, small or medium for the purposes of classification;

(ii) Information as regards turnover and exports turnover for an enterprise shall be linked to the Income tax Act or the Central Goods and Services Act (CGST Act) and the GSTIN.

(iii) The turnover related figures of such enterprise which do not have PAN will be considered on self-certification basis for a period up to 31st March 2021, and thereafter, PAN and GSTIN shall be mandatory. The revised definition of MSMEs will encourage exports by the companies as exports turnover has been excluded from the aggregate turnover for eligibility purposes, resulting in more companies qualifying for MSME status. Moreover, the increased limit on investment in plant and machinery, and equipment for medium companies, from Rs.10 crore to Rs.50 crore, will encourage adoption of more advanced technology in manufacturing which is the key to competitiveness in exports.

Registration Process for MSMEs

Registration process as provided in the Notification of the Ministry of MSME, New Delhi, dated 26 June 2020 is being reproduced here verbatim.

(A) Registration for New Enterprises

i. The form for registration is provided in the *Udyam Registration Portal.*

ii. Aadhaar number shall be required for Udyam registration.–of the Proprietor in case of Proprietorship firm, Managing Partner in case of Partnership firm, and authorised signatory in case of other forms of organisation.

iii. In case any enterprise is duly registered as an Udyam with PAN, any deficiency of information for previous years when it did not have PAN shall be filed on self-certification basis.

iv. No enterprise shall file more than one Udyam registration.

(B) Registration for Existing Enterprises

i. All existing enterprises registered under EM-Part-II or UAM shall register again on the Udyam Registration portal on or after the 1st day of July 2020.

ii. All enterprises registered till 30th June 2020, shall be reclassified in accordance with this notification.

iii. The existing enterprises registered prior to 30th June 2020, shall continue to be valid only for a period up to the 31st day of March 2021.

iv. An enterprise registered with any other organisation under the Ministry of MSME shall register itself again under Udyam Registration.

(C) Updation of Information and Transition Period in Classification

i. An enterprise having Udyam Registration Number shall update its information online in the Udyam Registration Portal, including details of the ITR and GST Return for the previous financial year, and such other information as may be required, on self-declaration basis.

ii. Based on the information furnished or gathered from Government's sources including ITR or GST return, the classification of the enterprise will be updated.

iii. In case of an upward change in terms of investment in plant and machinery or equipment or turnover or both, and consequent reclassification, the enterprise will maintain its prevailing status till the expiry of one year from the close of the financial year of registration.

iv. In case of reverse-graduation of an enterprise, whether as a result of re-classification or due to actual changes in investment in plant and machinery or equipment or turnover or both, and whether enterprise is registered or not, the enterprise will continue in its present category till the closure of the financial year, and it will be given the benefit of the changed status only with effect from 1st April of the financial year following the year in which such change took place.

(D) Facilitation and Grievance Redressal of Enterprises

i. The Champions Control Rooms functioning in various institutions and offices of the Ministry of MSME including Development Institutes (MSME-DI) shall act as Single Window Systems for facilitating the registration process, and further handholding the MSMEs in all possible ways.

ii. The District Industries Centres (DICs) will also act as Single Window Facilitation Systems in the respective districts.

iii. Any person who is not able to file Udyam Registration for any reason including for lack of Aadhaar number, may approach any of the above Single Window Systems for Udyam registration purposes with his Aadhaar enrolment identity slip or copy of Aadhaar enrolment request or bank photo passbook or voter identity card or passport or driving licence, and Single Window Systems will facilitate the process including getting Aadhaar number, and thereafter in the further process of Udyam Registration.

Exhibit—2: Loans to MSMEs May Get 'Risk-Free' Tag

The RBI is likely to allow banks to assign zero risk weight for loans that will be extended to MSMEs under the Rs.20 lakh crore economic package, *Atmanirbhar Bharat Abhiyan* (self-reliance of the country), announced by the Government in mid-May 2020. The Finance Ministry had requested the RBI to make these loans risk free, following an interaction with banks (*The Hindu, 21 &*28 May & 17 June 2020)   .

As a part of the package, a Rs.3 lakh crore emergency credit was announced for the MSME sector. Under the scheme, 100 per cent guarantee coverage will be provided for loans by the National Credit Guarantee Trustee Company Ltd. (NCGTC) to eligible MSMEs and interested borrowers of the Micro Units Development and Regulatory Agency (MUDRA) Scheme in the form of a Guaranteed Emergency Credit Line (GECL) facility. However, such loans would attract a risk weight of a minimum of 20 per cent, since these do not come with direct government guarantee. This facility is similar to the loans that are guaranteed by the Credit Guarantee Fund Trust for MSMEs (CGTMSE).

The main objective of the Scheme is to provide an incentive to member lending institutions to increase access and enable availability of additional funding facility to MSME borrowers, in view of the economic distress caused by the COVID – 19 crisis, by giving them 100 per cent guarantee for any losses suffered by them due to non-repayment of the GECL funding by the borrowers.

Beginning from June 1, 2020, as of June 12, 2020, public sector banks (PSBs) have sanctioned loans worth Rs. 32,049.86 crore for the MSME sector, adversely affected following COVID – 19, under the 100 per cent Emergency Credit Line Guarantee Scheme (ECLGS), out of which Rs. 16,031.39 crore has already been disbursed, tweeted the Finance Minister, Mrs. Sitharaman (*The Hindu, June 17, 2020*).

The Finance Ministry asked RBI to waive the requirement of assigning a risk weight to the loans. "The RBI is likely to waive the requirement of assigning of risk weight," the source said. Detailed guidelines on the Credit Guarantee Loan issue will be issued. Sources also said that the government had factored in less than 15 per cent non-performing assets (NPAs) from this Rs.3 lakh crore of loans for MSMEs. The government has said that it has made available a corpus of the Rs. 41,600 crore for the Scheme, which is spread over the current and the next three financial years. This means the government is factoring in less than 15 per cent NPAs, as of now."

Though the Scheme is primarily meant for the MSME sector, other small borrowers including non-banking financial companies (NBFCs) can also avail themselves of the scheme. The Scheme will be applicable to all loans sanctioned under GECL till October 31, 2020 or till an amount of Rs.3 lakh crore is sanctioned, whichever is earlier. Zero risk would mean that banks will not have to set aside additional capital for these loans. The move is aimed at encouraging lenders to extend credit, as banks have turned risk averse, and have been reluctant to lend. All MSME borrower accounts with outstanding credit up to Rs. 25 crore as on February 29, 2020, which was less than or equal to 60 days past due on that date, i.e. regular, SMA O and SMA 1 accounts, and with an annual turnover of up to Rs.100 crore,

would be eligible for GECL funding under the Scheme.

However, bankers stated that since the government is not giving a direct guarantee, this may not solve the 'risk averse' issue that the lenders are facing. They may approach the RBI to allow them not to attach any risk weight. The government would probably issue a letter of comfort, and based on that, this Corporation will issue guarantees.

The tenure of the loan under the scheme will be for four years, with a moratorium period of one year on the principal amount. The NCGTC will not charge any guarantee fee. The interest rate under the scheme is 9.25 per cent if the loan is extended by banks and financial institutions, and 14 per cent if by NBFCs. The Finance Minister, Nirmala Sitharaman, has asked the banks to extend loans automatically to eligible borrowers without fear of the '3Cs' – CBI, CVC, and CAG.

The Union Cabinet also approved a new centrally sponsored scheme to support micro food processing units at an outlay of Rs. 10,000 crore, the expenditure being shared by the Centre and the States on 60:40 basis. The scheme will be implemented over a 5-year period, and will benefit about two lakh self-help groups, farmer producer organisations and other small units through a credit-linked subsidy, providing money for working capital and tools, a marketing grant, skills training and technical upgrade.

Exhibit-3: ReSTART Package for MSMEs in Andhra Pradesh from May 2020

Andhra Pradesh has implemented the ReSTART Package for bailing out MSMEs ailing under the impact of lockdown, and also to rebuild the industrial sector in the State through this Package from May 2020. www.apindustries.gov. in/restart package. This was implemented by the State Government in two phases in May and June 2020 -- G.O.Rt. No. 103 of 15th May 2020, and G.O.Rt. No. 104 of 19th May 2020 of Industries & Commerce (P&I) Department Recognising the need to support the industrial sector, especially MSMEs in the wake of COVID-19 pandemic, and to enable the enterprises to ReSTART their operations, specific measures were announced by the State Government, with focus on improving the liquidity position of the enterprises in view of the hardships faced by them. It is thus mainly a Financial Package.

Specific steps taken for improving the liquidity position of MSMEs and other enterprises are detailed here.

(i) Release of pending incentives of Rs.904.89 crore to MSME manufacturing and allied units in two phases -- Rs.450.27 crore in the first phase in May 2020, and Rs.454.62 crore in June 2020 in the second phase. In addition, incentives payable to SC/ST entrepreneurs Rs.280 crore, and for women entrepreneurs Rs.496 crore will also be released.

(ii) Waiver of fixed / demand charges against power bills of contracted maximum demand for MSME manufacturing and allied units for a period of three months from April 2020 to June 2020. This amounted to Rs.187.80 crore.

(iii) Working capital loans – To enable micro and small manufacturing and allied units for meeting their liquidity crisis, a loan of Rs.2 lakh to Rs.10 lakh will be provided to each of the eligible MSMEs @ 6 per cent - 8 per cent interest rate plus processing fee of 0.25 per cent. The loan shall be repayable in 3 years including a moratorium period of 6 months. A Fund of Rs.200 crore will be mobilised from SIDBI / IDBI. APSFC shall be the nodal / operational agency for sanction of loans. There is no processing fee for enterprises forming part of the ReSTART package.

(iv) Preferential Market Access Policy-All Government entities shall procure at least 25 per cent of their annual requirements of goods and services from the eligible micro and small enterprises in the State. The entities procuring the material shall include all government departments, local bodies, statutory bodies, development authorities, companies, corporations, special purpose vehicles, societies, trusts, and any other public sector undertakings. Out of 25 per cent target, a sub-target of 4 per cent shall be earmarked for SC/ST owned micro and small enterprises (MSEs), and a sub-target of 3 per cent for women-owned MSEs.

(v) Deferment of fixed / demand charges against contracted maximum demand for Large and Mega Units for 3 months without interest or penal charges from April 2020 to June 2020. They have to be paid during August, September, and October, 2020.

Provisions for Subordinate Debt for Stressed Micro and Small Enterprises (MSEs)

(i) Borrowers with up to Rs.25 crore outstanding and Rs.100 crore turnover are eligible for the package. --- Emergency credit line to MSMEs from banks and NBFCs --equal to 15 per cent of their stake in the unit subject to a maximum of Rs.75 lakh.

(ii) Loans will have a 4-year tenure with a moratorium of 12 months on principal and interest -- interest to be capped.

(iii) 100 per cent credit guarantee cover to banks and NBFCs on principal and interest -- No guarantee fee and no fresh collaterals

(iv) The Scheme can be availed up to 31st October 2020.

Operational guidelines for implementing the scheme are:

(i) All MSME/Large/Mega units which were functional just before the lockdown, i.e. before February 2020 and earlier to that, will be eligible to avail of the benefits under the ReSTART strategy as applicable to their category.

(ii) Seasonal units which are operational during such specific seasons during the period of the financial year 2019-20 will also be eligible.

(iii) The manufacturing and allied units under the above categories will be eligible.

(iv) All units shall apply for eligibility under ReSTART on or before June 30, 2020.

Exhibit 4: Slowdown in Loans Sanctioned to Struggling Firms

The ECLGS Scheme is a key stimulus for businesses battered by lockdown restrictions due to COVID-19 (*The Hindu*, December 14, 2020). There has been some slowdown in loans sanctioned to struggling businesses and micro, small and medium enterprises (MSMEs) over the months of October and November 2020 under the Rs.3 lakh crore emergency credit line guarantee Scheme (ECLGS) announced by the Central Government in May 2020 under *Atmanirbhar Abhiyan*. In the first three months (June-August 2020), the ECLGS Fund had led to sanction of soft term loans of Rs.1.86 lakh crore, of which Rs.1.32 lakh crore had been disbursed to 27.09 lakh borrowers by September 29, 2020. Between September 29 and December 4, 2020, loans sanctioned under the scheme rose by just Rs.19,094 crore to a little over Rs.2.05 lakh crore. These sanctions pertained to 80.93 lakh accounts. Disbursals during this period increased by Rs.26,380 crore, with over 13.4 lakh more borrowers benefiting, taking the total amount paid out under the scheme to nearly Rs.1.59 lakh crore. The total borrowers receiving funds under the scheme now stands at 40.49 lakh.

Slowing Down of Credit Sanctions and Disbursement: Rs.19,094 crore of fresh loans were sanctioned under ECLGS for small businesses during October and November 2020. Disbursement during this period was Rs.26,380 crore. Number of borrowers was 13,40,462. Details are as shown in the Table-3.

Table -3 Fresh Loan Disbursements

Item	As of December 4, 2020	Change from September 29, 2020
Sanctions (Rs. crore)	2,05,563	19,094
Disbursal (Rs. crore)	1,58,626	26,380
No. of borrowers	40,49,489	13,40,462
Loan sanctioned to 80,93,481 borrowers	45 lakh -- the number of units the government expects to resume business activity and safeguard jobs	
Total eligible borrowers 1,39,79,948		

The ECLGS (Emergency Credit Line Guarantee Scheme) is a key element of the government's stimulus and support measures for firms battered by the lockdown restrictions put in place in March 2020 to curb the COVID-19 pandemic. The scheme provides additional working capital finance for 20 per cent of a borrower's outstanding credit as on February 29, 2020. The financing is in the form of term loan at a concessional rate of interest. In November 2020, the government had announced the expansion of the Scheme to cover even larger firms operating in healthcare and the 26 most stressed sectors identified by the E.V. Kamath Committee appointed by the RBI. Firms with outstanding loans of Rs.50 crore to Rs.500 crore from sectors such as construction, real estate, power, cement, hotels, and tourism, are eligible for support.

Aid to NBFCs : Similarly, the Rs.45,000 crore Partial Credit Guarantee Scheme 2.0 to enable non-banking finance companies (NBFCs), housing finance companies, and microfinance institutions to undertake fresh lending to MSMEs and individuals recorded a tepid offtake between September 29 and December 4.

Banks had approved purchase of loan portfolios of such entities worth Rs.25,505 crore, and purchased portfolio worth Rs.16,401 crore by September 25. Transactions being negotiated or awaiting approval at the time were around Rs.3,171 crore. As on December 4, 2020, the portfolios approved for purchase stood at Rs.27,794 crore, rising by just Rs.2,289 crore. The portfolios at the negotiation/approval stage had also declined to Rs.1,400 crore. The government has now extended the time line for banks to purchase bonds or commercial papers under the Scheme till December 31, 2020.

Table 1: Contribution of MSMEs in Indian Economy at Current Prices

(Figures in Rs. billion adjusted for FISIM at current prices)						
Year	MSME GVA	Growth (per cent)	Total GVA	Share of MSME in GVA (per cent)	Total GDP	Share of MSME in GDP (in per cent)
2011-12	26225.74	-	81069.46	32.35	87363.29	30.00
2012-13	30205.28	15.17	92026.92	32.82	99440.13	30.40
2013-14	33899.22	12.23	103631.53	32.71	112335.22	30.20
2014-15	37049.56	9.29	115042.79	32.21	124679.59	29.70
2015-16	40255.95	8.65	125666.46	32.03	137640.37	29.20
2016-17	44057.53	9.44	138415.91	31.83	152537.14	28.90

Source: Ministry of MSME, GoI (2020), **Annual Report 2019-20,** New Delhi, Chapter 2

1. Gross Value Added (GVA): It may be noted that estimates of GVA had been prepared at factor cost in the earlier series (base year 2004-05), while these are being prepared at basic prices in the new series (2011-12). GVA estimated by production approach (GVA= Output-Material Inputs), and GVA estimated by income approach: (GVA= Compensation of Employees + Operating Surplus + CFC).

2. Gross Domestic Product (GDP): GDP is derived by adding taxes on products, net of subsidies on products, to GVA at basic prices.

3. FISIM stands for Financial Intermediation Services Indirectly Measured. In the System of National Accounts, it is an estimate of the value of the services provided by financial intermediaries, such as banks, for which no explicit charges are made; instead these services are paid for as part of the margin between rates applied to savers and borrowers. The supposition is that savers would receive a lower interest rate and borrowers pay a higher interest rate if all financial services had explicit charges.

4. Gross Value of Output (GVO): Manufacturing Output is defined to include the ex-factory value (i.e., exclusive of taxes, duties, etc. on sale, and inclusive of subsidies, etc., if any) of products and by-products manufactured during the accounting year, and the net value of the semi-finished goods, work-in-process, and also the receipts for industrial and non-industrial services rendered to others, value of semi-finished goods of last year sold in the current year, sale value of goods sold in the same condition as purchased, and value of electricity generated and sold.

Part II - Progress and Performance of MSMEs

Role of MSMEs in Indian Economy

The Micro, Small & Medium Enterprises (MSMEs) have been contributing significantly to the expansion of entrepreneurial endeavours through business innovations. The MSMEs are widening their domain across sectors of the economy, producing diverse range of products and services to meet demands of domestic as well as global markets. As per the data available with Central Statistics Office (CSO), Ministry of Statistics & Programme Implementation, the contribution of MSME Sector in the country's Gross Value Added (GVA) and Gross Domestic Product (GDP), at current prices for the last six years is given Table 1.

The contribution of Manufacturing MSMEs in the country's total Manufacturing GVO (Gross Value of Output) at current prices has also remained consistent at about 33 per cent, i.e. one-third, during the last six years. MSME's share in Gross Value Added (GVA) is around 32 per cent, and in Gross Domestic Product (GDP) is close to 30 per cent in recent years. Employment generation through this sector is 111 million for 63.39 million enterprises in 2015-16.

Stand-up India Enterprise

Under the stand-up enterprise scheme, announced on 16 January 2016, the focus is on promoting entrepreneurship among Woman, and Scheduled Caste (SC) / Scheduled Tribe (ST) Entrepreneurs for promoting micro and small enterprises. It is targeted that each commercial bank branch in the country, particularly in rural, semi-urban, and urban areas, provides loan for at least two such projects in a year, one for each category of entrepreneurs. Bank loan will be in the range of ₹10 lakh to ₹1 crore per project. At least 51 per cent of the shareholding and controlling stake of the enterprise must be held by woman, SC/ST entrepreneur in each project. The scheme envisages upfront capital subsidy of 25 per cent of the project cost, to facilitate purchase of plant and machinery by existing as well as new enterprises. SC/ST enterprises are urged to participate in the public procurement policy of Central Public Sector Undertakings to the extent of 4 per cent of the CPSUs' annual purchases. This is part of the 25 per cent target applicable for micro and small enterprises.

A National SC-ST Hub (NSSH) has been launched on 18 October 2016 by Government of India with an outlay of ₹490 crore for the five-year period 2016-2020. The Hub is operational from National Small Industries Corporation (NSIC), a Central Public Sector Enterprise under the Ministry of MSME. NSSH organises professional support to SC/ST enterprises in a number of directions. Advances made to woman, and SC/ST enterprises are covered under the Credit Guarantee Fund Trust Scheme, with guarantee cover extended up to ₹2 crore; and guarantee of 80 per cent is given for the loan amount. As part of the 'Ease of Doing Business,' Udyog Aadhaar Memorandum (UAM) has been notified in September 2015. The system offers one-page single point online registration, on self-certification basis; thereby avoiding delays, and replacing the heterogeneity in the existing system of Entrepreneurship Memorandum (EM) parts I & II. This simplifies the process of registration of MSM enterprises considerably.

Start-up India Scheme

The term Start-up entity is given special connotation for availing the incentives and facilities announced for the programme by the Centre. The terms and conditions are being liberalised to enable talented entrepreneurs from various sectors to avail of this scheme. This programme refers to promotion of innovative enterprises with considerable amount of research and development work carried out in collaboration with a host leading higher educational and scientific research institution. Linking industry with academia to focus on new areas that have potential for development is the direction planned to be pursued for encouraging start-up entities. *The Atal Innovation Mission (AIM)* has also been launched to serve as a platform for promotion of world-class Innovation Hubs, Grand challenges, Start-up Businesses, and other self employment activities, particularly in the technology driven areas. The Atal Innovation Mission shall have two core functions: (i) Entrepreneurship promotion through Self Employment and Talent utilization (SETU), wherein innovators would be supported and mentored to become successful entrepreneurs, and (ii) Innovation Promotion: to provide a platform where innovative ideas are generated.

Start-up India Enterprise

In the Start-up initiative, *focussing on innovative technologies*, the term is given special connotation, specifically applicable for innovative enterprises where innovativeness is identified and certified by a government or reputed organisation such as an incubator. The entity is sector and scale neutral, and can be in any of the sectors such as agriculture, manufacturing, services including healthcare, education and other social sectors, bio-technology, Information Technology, IT-linked activities, consumer electronics, etc. Emphasis is on IT and IT-related services to begin with, though enterprises from other sectors can certainly take advantage of the scheme, provided they fulfil the criteria stipulated to receive the special incentives and facilities applicable for this category of enterprises. Two other criteria to be fulfilled are: (a) the enterprise registered not earlier than five years from 2016, and (b) annual turnover in the recent five years not exceeding Rs.25 crore. For MSME entrepreneurs not able to fulfil the criteria stipulated for the start-up programme, MSME promotion package relevant to their needs can be considered by them.

As per the new definition in vogue from February 2019, an entity shall be considered Start-up up to a period of ten years from the date of incorporation/registration, with an annual turnover not exceeding Rs.100 crore for any of the financial years since incorporation/registration. The programme is being implemented by the Department for Promotion of Industry and Internal Trade (DPIIT) (earlier known as Department of Industrial Policy and Promotion – DIPP – website: www.dipp.gov.in) of the Union Ministry of Commerce and Industry. Under the Start-up India Scheme, eligible companies can get recognised as start-ups by DPIIT in order to access a host of tax benefits, easier compliance, Intellectual Property Rights (IPRs), fast tracking, and other benefits.

As at end-December 2019, 26,804 start-ups across 555 districts have been recognised under the programme in 29 States and 6 Union Territories. An employment data of 3,06,848 jobs has been reported by 24,848 start-ups with an average number of 12 employees per start-up. *Start-ups must create world-class products* – Hon'ble Prime Minister, Shri Narendra Modi in his address at the NASSCOM Technology and Leadership Forum (NTLF), in New Delhi, told the leaders of IT industry on February 17, 2021 as follows: Start-ups in India should not focus only on valuations and exit strategies, but on creating institutions that will outlast this century and products that set the global benchmark on excellence, to help India become a global leader in technology. (*The Hindu*, February 18, 2021).

Fund of Funds

For providing fund support for Start-ups, Government has created a 'Fund of Funds for Start-ups (FFS)' at Small Industries Development Bank of India (SIDBI) with a corpus of Rs.10,000 crore. The FFS contributes to the corpus of Alternate Investment Funds (AIFs) for investing in equity and equity linked instruments of various Start-ups. The FFS is managed by SIDBI for which operational guidelines have been issued. Further, SIDBI has committed Rs.3,123.20 crore to 47 AIFs under FFS by end-December 2019. These funds have a corpus fund of Rs.25,728 crore. Rs.736.76 crore has been drawn from FFS, and Rs.2,793.93 crore has been invested into 285 startups. After the key revision made in the guidelines in March 2017, AIFs are required to invest twice the amount received from FFS in Start-ups. Also, they are now allowed to make follow on investments in an entity even after it ceases to be a start-up. The revision has helped in achieving quicker offtake with Rs. 21,303 cr. from FFS.

Relaxed Norms in Public Procurement for Start-ups

Provision has been introduced in the Procurement Policy of Ministry of Micro, Small and Medium Enterprises (Ministry of MSMEs) in March 2016 to relax norms pertaining to prior experience\turnover for micro and small enterprises. As directed in the circular of Department of Expenditure in July and September 2016, Central Ministries\Departments have to relax condition of prior turnover and prior experience in public procurement to all Start-ups (whether micro and small enterprises or otherwise) subject to meeting of quality and technical specifications. Department of Public Enterprises has further endorsed these orders to all Central Public Sector Undertakings in November 2016.

Also Rule 173(i) has been incorporated in GFR, 2017 which provides for relaxation of conditions of prior turnover and prior experience for Start-ups. Rule 170(i) of GFR 2017 has been amended in July 2017 allowing all Start-ups as recognised by DPIIT exemption from submission of EMD\Bid security in public procurement tenders.

To further support active participation of Start-ups in public procurement, Start-up India worked with the Government e-Marketplace (GeM) to establish Proof of Concept (PoC) Corner, Innovative products, mostly coming from Start-ups, which were unable to find an established category to be a part of, can now list themselves in the PoC Corner, allowing the larger market to access their innovation and test it before giving them orders. This enabled government department to adopt innovation as well. GeM portal was fully integrated with Start-up India portal allowing registered Start-ups a seamless connectivity to GeM Portal. In the GeMStartup Runway, a dedicated corner for startups launched to sell products and services to Government, 2,804 startups have registered as sellers on GeM up to end-December 2019. 13,666 orders have been placed to startups. Value of orders served by startups is to the tune of about Rs.463.50 crore.

Tax Incentives for Start-up

Three-year Income Tax Exemption

The Finance Act, 2016(Section 80-IAC) has provision for Start-ups (Companies and LLPs) to get income tax exemption for 3 years in a block of 5 years, if they are incorporated between 1st April 2016 and 31st March 2019. Start-ups would be able to avail income tax exemption for 3 consecutive assessments within the first 10 years of incorporation by the Inter-Ministerial Board. To avail these benefits, a Start-up must get a Certificate of eligibility from the Inter-Ministerial Board (IMB). 94 Start-ups have been approved *for availing tax benefits by IMB till March 2019.*

Exemption from Section 56(2) (viib) of Income Tax Act, 1961

The DPIIT issued a notification fast tracking the route for exemption from section 56(2) (viib) of the Income Tax Act, 1961. According to the new notification, neither the Inter-Ministerial Board (IMB) certificate nor a merchant banker certificate is required for such tax exemption. To further the ease of application, Start-ups are not required to submit investor income and networth details. Keeping confidentiality of investor tax returns and networth certificate in mind, the investors can now directly upload these details on the DPIIT portal. The tax exemption applications of DPIIT recognised Start-ups will be directly evaluated by CBDT (Central Board of Direct Taxes). To ensure quick processing of such tax exemption applications, CBDT will evaluate and respond within 45 days of receiving applications from DPIIT.

Tax Incentives for Start-ups announced in the Union Budget 2020-21

Start-ups have emerged as engines of growth for our economy. Over the past year, the Government has taken several measures to handhold them, and support their growth. During the formative years, Start-ups generally use Employee Stock Option (ESOP) to attract and retain highly talented employees. ESOP is a significant component of compensation for these employees. Currently, ESOPs are taxable as perquisites at the time of exercise. This leads to cash flow problem to the employees who do not sell the shares immediately, and continue to hold the same for the long-term. In order to give a boost to the start-up eco-system, it is proposed to ease the burden of taxation on the employees by deferring the tax payment by five years or till they leave the company or when they sell their shares, whichever is the earliest.

Further, an eligible start-up having turnover up to Rs.25 crore is allowed deduction of 100 per cent of its profits for three consecutive assessment years out of seven years, if the turnover does not exceed Rs.25 crore. In order to extend this benefit to larger start-ups, it is proposed to increase the turnover limit from the existing Rs.25 crore to Rs.100 crore. Moreover, considering the fact that in the initial years, a start-up may not have adequate profit to avail this deduction, it is proposed to extend the period of eligibility for claim of deduction from the existing 7 years to 10 years.

Tax Incentives for Startups announced in the Union Budget 2021-22

In order to incentivise start-ups, the eligibility for claiming tax holiday for start-ups has been extended by one more year – till end-March 2022.

In order to incentivise funding for start-ups, the capital gains exemption for investment in start-ups has been extended by one more year – till end-March 2022.

Conclusion

The experience of recent years reveals that SMEs can gain through product innovation, diversification, and strategic diversion from slow growth traditional products to high value added growth products, and adoption of aggressive marketing strategies. Directions for the future can include: formation of consortia, cluster associations, and strategic alliances with their counterparts in other countries resulting in technological linkages, and financial tie-up. Special attention needs to be paid to promote research and development, quality assurance, innovation and incubation, and application of information technology tools. SMEs need to be supported with conducive policy environment for enabling them to make greater contribution to exports in a large way to achieve concrete results. The impact of recent initiatives of Government of India and State Governments need to be carefully monitored to plan for subsequent steps to be taken to overcome the setback experienced in the growth of the sector because of COVID-19 pandemic.

Special focus has to be built on micro level planning of exports based on a smaller selective number of niche products (and services), niche locations including export clusters, and niche markets than has been attempted so far. While the government will have to play a crucial supportive role in carrying out the above exercise, the prime movers in the act will have to be exporting units themselves. Through periodic applied research and evaluation studies, it is important to make an assessment of the impact of certain policies on various product groups and in different regions of the country, and evolve new strategies relevant for coping up with the challenges of inclusive growth. SMEs in the competitive environment need to plan for globalisation as part of their strategy to enhance competitiveness, and not as a reaction to venture into new markets.

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Let's Aim at the Highest to Achieve Excellence

Padmasree Warrior, Founder President and CEO, Fable Group Inc. delivered the Convocation Address at the 52nd Convocation Ceremony of Indian Institute of Technology Delhi on November 13, 2021. She said, "Success is never easy. It will often take a lifetime of hard work, personal sacrifices, and dealing with frustrations. Take this as fundae from one of your seniors… after years of coping with the brutal exams at Indian Institute of Technology Delhi – the life ahead will be a piece of cake. You are armed with one of the best education experiences that the world offers, and your future achievement horizons are endless. I am confident that all of you will tackle it with responsibility, accountability, and kindness." Excerpts

It is my great honor to address all of you today at the 52nd Annual Convocation of my *alma mater*, IIT Delhi. I wish I could have been attending in person at Dogra Hall. Even though I am joining you virtually from Chicago, IL in the U.S., I am there with you in spirit – thanks to the power of technology.

I graduated from IIT Delhi with a degree in Chemical Engineering almost 40 years ago. Yes, that was a long time ago! Even though I graduated years ago, I still remember my days at IIT Delhi like it was just yesterday. That is the magic of this Institution.

To this day, I hang out with my IITD friends reminiscing into wee hours – remembering the escapades during Rendezvous, taking long walks from Kailash to the "forbidden city" of boys hostels at the other end of the campus, cramming for tests every week, those panic attacks when you realize you don't have any notes because you bunked class to go to the movies instead, and the never-ending chai sessions at the canteen to discuss just about anything and everything. IITD is not only about getting an education, it is about lifelong friendships, about growing up, about preparing for life. Well in my case, it was also about falling in love. My husband of 37 years, Mohan Warrior was one of my classmates at IITD and despite Kailash's imposing walls – I found love at IITD. It's no wonder that IIT Delhi occupies a very special place, not only in my mind, but also in my heart.

Life Lessons

As I reflect on my time at IIT Delhi, I can think of three important life lessons (not counting the Chemical Engineering curriculum, of course) that I learned.

First, the power of humility. I came to IIT Delhi from Vijayawada in Southern India where I grew up in a middle-class family. I was 16 years old at that time, and to be honest, I was a bit of a know-it-all (as most teenagers tend to be). I thought I was the smartest person on the planet. But on my first day at IIT Delhi, I realized I was surrounded by people that were much smarter than me. IIT gave me the much-needed gut punch and taught me the power of humility. This is an invaluable lesson in leadership. It is good to be confident as a leader, but you cannot be a know-it-all or have a chip on your shoulder to show off that you have all the answers all the time. To build any organization, a leader must include everyone in their thought process. This is leading with the power of humility.

I also learned the power of community at IIT Delhi. There were only five women in a class of 250 when I attended IIT. I sincerely hope the numbers for women engineers at IITD are better now! All the women students supported each other, and we built a strong close-knit community of women engineers at IIT and across other engineering colleges. In retrospect, I owe a lot to this community. They gave me the strength to cope with all of the isolation and anxiety that comes with being a minority, being different, and often being the only woman in a room full of men. So, whoever you are – be true to yourself and remember to build a community of support around you. Learn to leverage the power of community.

We all know that the curriculum at IIT is tough. It is rigorous (as the professors like to say), but brutal (as the students often call it). This brutal rigor taught me how to problem-solve from first principles – a great skill for engineers and technologists to possess. If you are confident about problem-solving capabilities, you can be successful in any role in any industry, which in turn boosts your self-confidence. This may sound simplistic, but trust me, problem-solving skills come in handy to build resilience in your life. The third life lesson I took with me from IIT is building self-confidence with problem-solving.

Today, I imagine you must all be feeling some of the same emotions I experienced when I was graduating from IIT Delhi – excitement, anticipation and maybe a

bit of anxiety. And today we are grappling with many new questions such as – what will post-pandemic life look like?

Post-pandemic Life

There's no doubt that COVID-19 turned our world upside down. It made us confront the fragility of life and forced us to create new routines as we learned to cope with lockdowns. While we are all looking forward to ending the human suffering caused by this pandemic – it is important to think about how this pandemic has changed our society. Scientists tell us that imagining and planning for the future can be a powerful coping mechanism in an increasingly unpredictable post-pandemic life. Behavioral and social scientists around the world are trying to provide us with answers to some of these challenging questions.

But one thing is clear, over the past year-and-a-half we saw fundamental structural changes in every industry–from the adoption of telehealth to curbside delivery to the normalization of remote work and digital learning platforms.

During the pandemic, we spent more time caring for each other; we slowed down and parents spent more time home schooling their kids. We focused more on basic hygiene, relearned how to wash our hands, wear masks in public places, and maintain social distance in gatherings. We prioritized our physical and mental health and learned to appreciate the things we used to take for granted. We proved to ourselves that we are resilient and we can work together as a global society. We treated each other with compassion. Let us hope all of these things stay with us in our post-pandemic life.

Looking Forward

The future that we will inhabit will be planned and built by YOU. As technologists graduating from one of top Institutions of Technology in the world, you must ask yourself – what will you build and how will you lead us into the future with the power of technology?

The Power of Technology

Technology has always played an important role in our society. Let me now spend a few minutes talking about some key technologies and technology trends that you should watch.

Digital Transformation

This is an overused term perhaps, but the fundamental premise and impact of digital transformation is profound. In the next decade, literally every industry and every company will be a technology company. This means that we will continue to see an accelerated rate of digitization and virtualization of business and society. However, as we move into the future, the need for sustainability, ever-increasing data volumes, and increasing computation and network speeds will begin to be the most important drivers of digital transformation. Covid-19 has dramatically accelerated the growth in digital economy – the sharp rise in digital productivity platforms that let us work and study from anywhere; online shopping for clothes, groceries, even freshly cooked food; streaming entertainment that replaces live concerts and movies; online banking; digital gyms and dance studios, the list goes on. Ideas such as telehealth which were slow to adoption before the pandemic are now becoming common for non-critical care. Old industries are being transformed and terms like EdTech, FinTech, HealthTech, AgriTech, and so on are mainstream now.

AI and Data

AI, or artificial intelligence, seems to be on the tip of everyone's tongue these days. AI and Data Scientists are probably the most in-demand workers in the current job market. AI has already permeated our daily lives – from voice assistants to language translation to tools that allow us to extract structured data from pictures and hand-written notes. Reports show that the use of AI in many sectors of business has grown by 270% over the last four years. Whichever industry you choose to work in, you are bound to either use or build tools with AI.

Medical and Automotive are two exciting new areas where AI can have a positive impact.

Medical

The medical industry has a robust amount of data that may be utilized to create predictive models for healthcare. Areas such as computational pathology and computational radiology can help medical professionals with early detection, diagnosis, and efficacy of treatment.

Automotive

Similarly, we're already seeing the impact of AI in transportation with the advent of autonomous

vehicles, and there are many other exciting AI applications to look forward to in traffic management, urban parking optimization, and intelligent highways.

Sustainability and Climate Tech

Scientists continue to warn us about climate change, and as citizens of Earth, we are feeling the impact of climate change every day in every corner of the world. Pressure is mounting on world leaders to significantly reduce Green House Gas (GHG) emissions.

According to a latest report, climate tech start-ups have raised a record $32 billion globally so far in 2021. Climate tech encompasses a broad set of sectors that tackle the challenge of decarbonizing the global economy with the aim of reaching net-zero emissions before 2050. New technologies represent a critical part of the world's decarbonization tool kit — and the world does not yet have all the technologies that we need to solve the net-zero equation by balancing both sources and sinks of GHG emissions.

A report from McKinsey cites nine technological innovations that will shape the sustainability agenda. While by no means exhaustive, this is a pretty compelling list of technologies that could be exciting to explore. This list includes;

i.   Public electric transportation
ii.   Electric trucks
iii. Cheap energy storage
iv.   Long term storage
v.   Plastic recycling
vi.   LED light efficiency
vii. Accessible solar power
viii. Carbon capture and storage
ix.   Hydrogen in the energy transition

Innovations from India can have a net positive global impact in this area.

Bioinformatics

Bioinformatics is at the intersection of computer science, big data, and biology. Some experts believe that anything that happens in biology in the future will have some component of bioinformatics. According to the

U.S. Bureau of Labor Statistics, jobs in computer-based analysis are projected to grow 15 percent by 2029, with the healthcare, pharmaceutical, and biotechnology fields leading the way. A silver lining to the COVID-19 pandemic has been the advent of rapidly developing vaccines using mRNA techniques., This has fundamentally changed immunization therapy, and this is an exciting interdisciplinary field with many opportunities to explore in the future.

Cybersecurity

Cybersecurity Ventures expects global cybercrime costs to grow by 15 percent per year over the next five years, reaching $10.5 trillion USD annually by 2025, up from $3 trillion USD in 2015. This represents the greatest transfer of economic wealth in history. Cybersecurity is crucial for the constant evolution of the digital world. Data and system protection in a frequently connected environment is essential to ensure users, businesses, and governments' integrity. And with the complexity of security requirements increasing, we face more significant challenges to develop advanced security systems. This area will continue to be critically important across all industries.

Cyptocurrency and Blockchain

Controversial and often debated, cryptocurrency (as you may know) is a form of digital payment that can be exchanged online for goods and services. Many companies issue their own currencies called tokens, which can be traded specifically for the goods or services that the company provides. Cryptocurrencies work using a technology called blockchain: a decentralized technology spread across many computers that manage and record transactions. Part of the appeal of this technology is its security. However, there are still many concerns swirling around this new system and its capacity to disrupt traditional financial systems. Cryptocurrency's future outlook is still very much in question. Proponents see limitless potential, while critics see nothing but risk. Regardless, this is an area you should learn about and monitor its progress in years to come.

Your Future

No matter which fields you choose to pursue, your IIT education will come in handy. I'd also like to point out that without exception all of the areas I've covered so far are interdisciplinary. Your ability to cross boundaries and work in adjacent domains will be critically important in the future.

One other thing we all learned during the pandemic is the importance of mental wellness. We are now seeing the beginnings of what I call the global mental wellness movement.

The Global Mental Wellness Movement

Catalyzed by the always-on demands of modern life – stress, anxiety, depression and social isolation are on the rise. Global rates of depression and anxiety have increased 15% to 20% during the last decade. The World Economic Forum projects that mental health disorders will cost a staggering loss in economic output of $16.3 trillion between 2011 and 2030. According to Forbes, employee mental health is one of the top leadership priorities in the coming decade. Time starved and with limited mental energy, we scroll endlessly, searching for meaningful ways to fill the micro-moments in our busy lives. Research shows that a person's mental health impacts their physical health. Over-scheduled and under-rested, the mandate for mental wellness has never been more important.

Ten years ago, the physical fitness industry was far less than the $4.2 trillion market it is today. Fast-forward and this 'boutique' fitness sector has become the norm. Corporate wellness programs are now mainstay all over the world; over 80% of U.S companies with more than fifty employees offer some sort of corporate wellness benefit. Today, coping with burnout, stress, and depression is the burning platform. Corporations must provide employees with the support they need to improve retention, and doing nothing will only reinforce an outdated stigma.

Reading, meditation, music, and exercise all help improve our mental wellness. That's why I started Fable, a tech company with the soul of an artist, that is dedicated to the mission of putting the omnipresent mobile screen in service of our mental wellness.

Leaders of the Future

Which bring us to the question – what are the most important leadership characteristics for the future?

In my view, leaders of the future must know how to lead when there are no boundaries between work, home, and society. We all experienced this blurring of boundaries in 2020. When I started my career – work, home, and society had a clear separation. This is not the case anymore. We work from home, and our work is influenced by (and, in turn influences) society, politics, culture. As leaders we cannot turn a blind eye or close our ears to everything that is happening around us.

As future leaders you must develop and exhibit three important skills.

1. Empathy – the ability to bring opposing viewpoints together
2. Active Listening – the aptitude to understand issues deeply, going beyond the surface level
3. Ability to learn – this is the most important ability for a leader, especially in the fast-paced technology industry

Well my friends, let me wrap up by saying how excited I am to be part of the future that YOU will build. With your IIT education, you are now ready to take on the world. I won't sugarcoat this address and tell you that the path ahead will be easy. Success is never easy. It will often take a lifetime of hard work, personal sacrifices, and dealing with frustrations. Take this as fundae from one of your seniors… after years of coping with the brutal exams at IIT Delhi – the life ahead will be a piece a cake.

So, bring it… IIT'ians! You are armed with one of the best education experiences that the world offers, and your future achievement horizons are endless. I am confident that all of you will tackle it with responsibility, accountability, and kindness.

Look around you! Don't forget that you will carry the honor of this institution in your mind and the magic of this community in your heart, wherever life takes you.

My very best wishes to all of you. As my dad told me when I graduated from IIT Delhi, "Eyes on the stars and feet on the ground."

Congratulations ! Now it's time for some of that delicious *Dilli Mithai ! Chalo ab munh mitha karte hai !* ❑

CAMPUS NEWS

National Seminar on Social Transformation in India 2.0 and National Education Policy-2020

A two-day National Seminar on 'Social Transformation in India 2.0 and National Education Policy-2020' was organised by the Department of Teacher Education, Nagaland University, Kohima Campus, Meriema during April 21-22, 2022. The event was sponsored by ICSSR, New Delhi. The Chief Patron of the Seminar was Vice Chancellor, Prof. Pardeshi Lal, Patron of the seminar was the Pro-Vice Chancellor, Prof. A K Mishra and Co-Patron was the Dean of School of Humanities and Education, Nagaland University, Nagaland. The Chairperson of the event was Dr. P K Pattnaik, Head, Department of Teacher Education, Nagaland University. Dr Rashmi, Assistant Professor, Department of Teacher Education, Nagaland University was the Convener of the event while Dr. Neha Rawat, Assistant Professor, Department of Teacher Education, Nagaland University was the Co-convener of the event.

Prof. A K Mishra, Pro-Vice Chancellor, Nagaland University, Nagaland was the Chief Guest of the event. Dr. Katoni Jakhalu, Director, Department of Higher Education, Government of Nagaland was the Special Guest during the inaugural session. Other dignitaries present were Prof. Ram Shankar Kureel (Member, NEP Committee), Vice Chancellor, Mahatma Gandhi University of Horticulture and Forestry, Chhattisgarh, Prof. Mazhar Asif (Member, NEP Committee), Dean, School of Language Literature & Culture Studies Jawaharlal Nehru University, New Delhi, Prof. Subhas Chandra Roy, Department of Education, North East Regional Institute of Education (NERIE), NCERT, Dr. Manas Ranjan Panigrahi, Senior Programme Officer, Education, Commonwealth Educational Media Centre for Asia (CEMCA), New Delhi, Prof. Buno Liegise, Head, Department of Education, Nagaland University and Prof. Lungsang Zeliang, Director (I/c), Women Studies Centre, Department of Education, Nagaland University.

The Keynote Speaker, Prof. Ram Shankar Kureel spoke about the significance of National Education Policy and pointed out three basic visions: a vision towards an education system that contributes to an equitable and vibrant knowledge, society and providing high quality education. The Special Guest, Dr. Katoni Jakhalu addressed that at this juncture we are at a time of social change, to collectively discuss the different paradigms of NEP-2020. She pointed out that such events sharpen our perspectives and give a new momentum to the implementation of NEP-2020.

The Resource Person, Prof. Mazhar Asif stated that the purpose of education includes creativity, ethical values, rationality, towards a good human being, etc. The difference between knowledge and education was stressed and NEP's claim towards growth in knowledge (*Gyan*) and not only education (*Shiksha*). There is a hub of knowledge everywhere, even in Kohima; in handicrafts, music, dance, medicinal plants, etc. And so knowledge, both written and unwritten must be preserved and transferred to the coming generations. In this way, the policy envisions producing skilled and knowledgeable people.

Prof. Subhas Chandra Roy began his address by highlighting the journey of education from pre-independence to the present 21st century. The introduction of NEP-2020 is a game-changer for the country as it sets its goal toward a holistic development. The speaker stressed how to achieve the holistic goals to produce vibrant individuals and a vibrant knowledge society. The NEP-2020 has envisaged the shift of structural, pedagogy, curricula, and assessment to inculcate holistic development. The policy is a mandate to bring desired changes in the present education system.

Prof. Buno Liegise congratulated the Teacher Education department for organising the event. She highlighted the pros and cons of the NEP and the need to look at both sides of the story and have a balanced approach. She also discussed the significance of the multidisciplinary approach to learning in North East India. She pointed out the fact that Nagaland is rich in co-curricular activities and with the NEP-2020, a new hope is instilled for more emphasis on such activities. With a hopeful note, Prof. Buno Liegise concluded her speech that the grievances of the minorities will also be recognised and taken care of, for a better India.

Prof. Lungsang Zeliang focused on the vital role of skills and vocational education was also

highlighted. Some examples among many in introducing innovative ways of vocational skills at the local level are; Organic farming in K. Khel Government Middle School, training of handicrafts at New Creation School in Sekriizu, Phek, Skills Training Centre known as '*Ketsangriju*' at Fazl Ali College, Mokochung.

Dr. Manas Ranjan Panigrahi congratulated the Department of Teacher Education, Nagaland University for organizing the event. The speaker addressed a pertinent question in meeting the Gross Enrolment Ratio (GER) in education as envisaged by the NEP-2020 and asserted that this can be achieved through increase in the usage of internet. Dr. Panigrahi also stressed the need to change the mindset to shift from traditional to hybrid teaching process alongwith the need to categorize instructional process. Further highlighting what's happening in the world of online learning, the speaker discussed the synchronous/asynchronous/blended learning and how these can benefit all and meet the goals of the NEP-2020. A brief history of OER (Open Educational Resources) discussed and the 5R's model i.e. Reuse, Redistribute, Revise, Remix, and Retain was also deliberated. The speaker also discussed in detail about the creative commons licenses as well as the platforms/repositories for OER's. Dr. Panigrahi concluded that maximum benefits of the internet and technology be explored for educational purposes so as to reach the educational goals of NEP-2020.

The valedictory speech was given by Prof. Nigamananda Das, Department of English, Former Dean, School of Humanities & Education, Nagaland University. The speaker congratulated the Department of Teacher Education for organizing the programme and pointed out that though the department was started in 2015, it has fervently organized several such programmes and on several occasions successfully collaborated with other departments. Prof Das opined that there is a need to do a comparative analysis of the last NEP, 1986 and the present NEP, 2020, to see how far we have successfully implemented the NEP, 1986. The speaker stressed that there is a necessity to educate the public and continue such discussions in the future.

The Vote of Thanks was proposed by Prof. Gyanendra Nath Tiwari, Department of Teacher Education, Nagaland University. Recognizing the significance of the event, Prof. Tiwari thanked the Convener of the seminar, and Dr. Rashmi for taking the pains to successfully organize the event. Gratitude was also extended to the Pro-Vice Chancellor, Nagaland University, Prof. A.K. Mishra and all resource persons, paper presenters, and participants for their active and valuable participation. As an event of this dimension cannot happen overnight, Prof. Tiwari noted that it is only through the cooperation of every individual present that the seminar could be completed.

Annual International Research Conference

A three-day Annual International Research Conference is being organized by the Indian Institute of Management Lucknow from December 09-11, 2022 at Noida Campus. The event may provide a platform to exchange thought-provoking ideas and issues in various business functions and domains of management. The forum will emphasize capacity building to help render research into effective management practices.

Globally, we are witnessing increased interest in many management and policy level initiatives which require looking at national and global developments from different perspectives. Understanding of effective firm operations and societal well-being is critical for overall growth in an economy. In an increasingly unpredictable era of rapidly changing technology, collective crisis such as COVID-19, globalization and the rise of social media managing robust supply-chains, efficient production, marketing, financial management and employee engagement has become even more challenging. The various Tracks of the event are:

Tracks in Economics

- Agricultural and Natural Resource Economics.
- Business Economics.
- Economic Development and Growth.
- Economic History.
- Economic Systems.
- Environmental and Ecological Economics.
- Financial Economics.
- Other Related Areas.

Tracks in Information Technology and Systems

- Agile Project and Programme Management.

- Artificial Intelligence and Emerging Technologies.
- Big Data and Digital Goods.
- Cyber Security and Risk.
- Data and Information Privacy.
- Data Mining and Predictive Analytics.
- Decision Support Systems and Data Management.
- Other Related Areas.

Tracks in Finance

- Accounting, Auditing and Taxation Issues
- Alternative Asset Classes.
- Asset Pricing.
- Banking and Regulations.
- Behavioural and Experimental Finance.
- Other Related Areas.

Tracks in Communication

- Audience Theory and Research.
- Communication Theory and Research.
- Crisis Communication.
- Cross-cultural Communication
- Environmental Communication/ Communicating Climate Change.
- Health Communication.
- Other Related Areas.

Tracks in Marketing

- Advertising and Promotions.
- Bottom of Pyramid Marketing.
- Business to Business Marketing.
- Consumer Behavior.
- Customer Relationship Management.
- Other Related Areas.

Tracks in Sustainability

- Business Society and Government.
- Circular Economy and Resource Efficiency.
- Climate Change.
- Corporate Social Responsibility.
- Energy and Environment Policies.
- Energy Businesses.
- Environment and Externalities Trading.
- Other Related Areas.

Tracks in Decision Sciences

- Applied Statistics.

- Bayesian Data Analysis.
- Behavioural OR Statistics.
- Decision Analysis.
- Econometrics.
- Forecasting.
- Other Related Areas.

Tracks in Operations Management

- Behavioural Operations Management.
- Coordination Mechanisms in Supply Chain and Transportation.
- Data Driven Decision Making during COVID-19.
- Decision Making Under Uncertainty.
- Other Related Areas.

Tracks in OB/HRM

- Careers.
- Change Management.
- Diversity and Inclusion.
- HRM.
- International Management.
- Leadership.
- Organization and Management Theory.
- Organizational Culture.
- Social Issues in Management.
- Technology and Innovation Management.
- Other Related Areas.

For further details, contact Convener, Prof. Samir K Srivastava, Dean, Research, Indian Institute of Management, Lucknow-226013, Phone No: +91-522-2734101, E-mail: *airc@iiml.ac.in.* For updates, log on to: *www.iiml.ac.in/events*.

Capacity Building Programme

A twelve-day Capacity Building Programme on 'Social Reality, Research and Development for Young Social Science Faculty' is being organised by the Department of Political Science, Faculty of Social Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh during May 25– June 05, 2022. The programme is sponsored by Indian Council of Social Science Research, New Delhi. The programme is designed to train the faculty in the social sciences to deal with basic research issues and to learn the important tools and methods of social sciences research. The purpose of the programme is to enhance

the capability of doing quality research among young faculty members of social sciences. There is a pressing need to train young researchers at universities who can complete quality research in time. The programme is to give participants hands-on experience in conducting field surveys, preparing a field report, and writing quality research papers/articles. The objectives of the programme is to: aware participants about the social science perspective in research, teaching and development; sensitize participants about social reality and issues of social exclusion; impart skills to conduct research in social sciences; acquaint participants with Research Management and Administration skills; make participants aware of funding opportunities available to undertake research; impart knowledge on application of Information and Communication Technology for Social Science research and teaching; and strengthen abilities of participants in writing research proposal, research reports; scientific writing to improve their publications.

For further details, contact Dr. Hemant Kumar Malviya, Professor, Department of Political Science, Banaras Hindu University, Varanasi, Uttar Pradesh-221005, Mobile No: 09793589663, E-mail: *hemanticssr12@gmail.com.* For updates, log on to: *www.bhu.ac.in/events.*

National Seminar on Canons, Contours, and Contributions of Child Protection Laws

A two-day National Seminar on 'Canons, Contours, and Contributions of Child Protection Laws in India in the Care and Protection of Children' is being organized by the Department of Legal Studies, University of Madras, Chennai, Tamil Nadu during July 15-16, 2022. The academicians, members from the Bench and Bar, law making and enforcing authorities, public prosecutors, teachers from schools, NGOs, law students, research scholars and child welfare and protecting authorities may participate in the event.

A child is considered to be a gift sent by God to human beings. It is very ironic to say sometimes, the parents go to the extent of killing the fetus in the womb for various reasons. Even after their birth, they exposed to many challenges and issues in society. They encounter problems not only from outside the society but also within their family. The change has taken place in the pattern family system, growth of technology, change in the individual's way of life, and modernization affected social fabric of our society including the care and protection of the children turning them more vulnerable during their lifetime. The recent incidences that occurred across the globe both at the time of conflict or at peacetime have trembled the conscience of the international community, rights activists, and the people to focus on the law and protection as well as the holistic development of children. Realizing the reality, the international community came up with child-centric human rights jurisprudence and requested the state to react immediately to bring various Legislations that protect the rights of a child and also promote a child-friendly Legal system. Responding to the international initiatives most of the Countries in the world including India took efforts to have holistic development of child laws and legal systems in their countries. In course of action, the state witnessed the dichotomy between a child as a perpetrator of the crime and a child as a victim. Therefore, like other Countries, India also came with Laws and Legal systems to govern the child in conflict with law and Child Victims. The Subthemes of the event are:

- Protection of Child-International Human Rights Perspective.

- Protection of Child – Constitutional Perspective.

- Child Rights and ILO.

- Convention on Rights of the Child-1989.

- Juvenile Justice (Care and Protection of Children) Act, 2015.

- The Protection of Children from Sexual Offences Act, 2012.

- The Commissions for Protection of Child Rights.

- Foster Care Issues.

- And Other Related Issues.

For further details, contact Organizing Secretary, Dr. G Rajasekar, Assistant Professor, Department of Legal Studies, University of Madras, Chennai-600005 (Tamil Nadu). Mobile No: 9003273761 / 8138003591/ 9094266256/ 9677277047. E-mail: *seminardlsunom@gmail.com.* For updates, log on to: *www.unom.ac.in/ events/* ❑

THESES OF THE MONTH

HUMANITIES
A List of doctoral theses accepted by Indian Universities
(Notifications received in AIU during the month of February-March, 2022)

Geography

1. Biswas, Baidurya. **Effects of Terrain characteristics on land use land cover in Sanka River Basin: West Bengal and Jharkhand**. (Dr. Snehasish Saha), Department of Geography and Applied Geography, University of North Bengal, Darjeeling.

2. Gaikwad, Shrihari Ramrao. **Naded Jihyateel seva kendracha bhogolik abhyas**. (Dr. Sadanand H Gone), Department of Geography, Swami Ramanand Teerth Marathwada University, Nanded.

3. Murge, Mahananda Umakant. **A study of urban centers in Beed District**. (Dr. Ashture S B), Department of Geography, Swami Ramanand Teerth Marathwada University, Nanded.

History

1. Datta, Abhijit. **Industry, trade and commerce in early medieval Bengal: A historical investigation**. (Dr. Sudash Lama), Department of History, University of North Bengal, Darjeeling.

2. Gurrala, Ramakrishna. **The polity of Vijayanagara empire as depicted in Amuktamalyada of Sri Krishnadevaraya**. (Dr. S Murali Mohan), Department of History and Archaeology, Acharya Nagarjuna University, Nagarjuna Nagar.

3. Megomi, Marri. **A historical treatise of the Mennonite Brethren in Telangana**. (Dr. G Soma Sekhara), Department of History, Acharya Nagarjuna University, Nagarjuna Nagar.

4. Palkar, Prashant Dashrathrao. **Bhartateel samajik parivartanvaadi Challavlliteel Ma. Kashiramji yanchey yogdan: Ek chikitsak abhyas**. (Dr. U S Sawant), Department of History, Swami Ramanand Teerth Marathwada University, Nanded.

Languages & Literature

Assamese

1. Baishya, Chanakya. **Snehadevir Galpat gramya jiwan aru lokachar: Ek bishlesanatm ak adhyayan**. (Dr. Bibhuti Lochan Sarma), Department of Assamese, Bodoland University, Kokrajhar.

2. Baishya, Gobinda. **Bishnu Prasad Rabhar sahitya samagrat Marxbadi adarsha: Ek bishleshanatmak adhyayan**. (Dr. Sumi Kalita), Department of Assamese, Bodoland University, Kokrajhar.

Bodo

1. Basumatary, Priyanath. **Culture, ethnicity and womanhood: A study of the novels of Manaranjan Lahary**. (Dr. Ismail Hussain), Department of Bodo, Bodoland University, Kokrajhar.

English

1. Aglave, Ganpat Shriram. **Racial discrimination in the selected novels of Chinua Achebee Patrick Modiano and Laxman Mane's autobiography "The Outsider"**. (Dr. Padamwar U D), Department of English, Swami Ramanand Teerth Marathwada University, Nanded.

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Hindi

1. Mishra, Megha. **Bundelkhand ke Hindi upanyasoan mein istri chintan kee avdharna**. (Dr. Sandhya Tikekar), Department of Hindi, Maharaja Chhatrasal Bundelkhand Vishwavidyalaya, Chhatarpur.

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Marathi

1. Hambarde, Deepali Surybhan. **Marathwadachya Seemabhagateel Ovigeetantun vyakat honare lokjeevan: Ek abhyas**. (Dr. Suryaprakash Jadhav), Department of Marathi, Swami Ramanand Teerth Marathwada University, Nanded.

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Mizo

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Nepali

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Sanskrit

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Telugu

1. Dasari, Ramesh. **Folk literature-comedy**. (Prof. N Venkata Krishnarao), Department of Telugu and Oriental Languages, Acharya Nagarjuna University, Nagarjuna Nagar.

2. Mallineni, Nvenkataprasad. **Jandhyala sudhamsu sahityanuseelana**. (Dr. Gumma Sambasivarao), Department of Telugu and Oriental Languages, Acharya Nagarjuna University, Nagarjuna Nagar.

3. Nakka, Srinivasa Rao. **Paakudurallu navala-paatra chitrana**. (Dr. Ch Satyanarayana), Department of Telugu and Oriental Languages, Acharya Nagarjuna University, Nagarjuna Nagar.

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Performing Arts

Fine Arts

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Religion

Buddhism

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Jainism

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3. Kavyanidhi, Sadhvi. **Jain dharam-darshan mein Kayotsarg ka swarup-vivechan**. (Dr. Kumarpal Bhai Desai), Department of Jainology and Comparative Religion & Philosophy, Jain Vishva Bharati Institute, Ladnun, District Nagaur. ❑
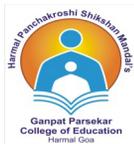
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