

Making Mentoring Relevant: NEP 2020 PERSPECTIVE

Recommendations of the Panel Discussions

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FOREWORD

The National Education Policy NEP 2020, a dream education policy of the nation, now has raised many hopes for the stakeholders. Dr A.P.J. Abdul Kalam once said “Enlightened citizenship has three components: education with value system, religion transforming into spiritual force, and creating economic prosperity through development”. The NEP-2020 is perfectly in synchronisation with this philosophy. Dr. Kalam further emphasized that “It is through the process of innovation that knowledge is converted into wealth”. The knowledge bank of this country is full of resources. Now the education policy NEP-2020 envisages for converting this knowledge bank into wealth to make the nation strong and economically rich. The attempt of the policy is to manage the knowledge, information and the knowledge creators to become more creative and innovative. I see NEP-2020 is an outcome of a foresighted vision, participation of innovative minds and creative thinking to empower education system to change the course of the nation.

In the ground rules of economic competitiveness, the technology plays a pivotal role. The released education policy NEP 2020 is all for integration of technology to education ecosystem. In this whole thought process, it is well realised that the Higher Education Institutions in that matter the Higher Education System is a focal pillar of the growth model of the country. However, a holistic transformation requires bringing change in mind, change in heart and change in action.

The transcendental change in the higher education system cannot be accomplished without institutionalising mentoring. Therefore, in the National Education Policy-2020, there is a mention of “National Mission on Mentoring”. The importance of mentoring, its impact and implications are well felt specially by a very dynamic, proactive and supportive Joint Secretary to Government of India, Shri Madhu Ranjan Kumar. Knowing very well the strength, expertise and experiences available at NITTTRs, Shri Madhu Ranjan Kumar, Joint Secretary, Department of Higher Education, Ministry of Education, Govt India assigned goal setting roles for NITTTRs to be part of National Mission on Mentoring. Under his able guidance, timely actions were planned and NITTTR Chandigarh was assigned the job of coordination. NITTTR Chandigarh believes in inclusivity and collaborative action.

The recommendations of the panel discussions on Making Mentoring Relevant: NEP 2020 Perspective are outcome of collaborative efforts of NITTTR Bhopal, NITTTR Chandigarh, NITTTR Chennai, NITTTR Kolkata and INFLIBNET Gandhinagar. Learned and known academicians from technical and non-technical higher education system put-forth their innovative thoughts during the panel discussions held on 21 September 2020. These recommendations got optimised during brainstorming sessions held on 24 and 25 September 2020. The recommendations are compiled in this document hoping that it will act as a lighthouse to the ship of “National Mission on Mentoring”

Prof Shyam Sundar Pattnaik
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Making Mentoring Relevant: NEP 2020 Perspective

1. INTRODUCTION

National Education Policy 2020 aims to increase the Gross Enrolment Ratio in higher education including vocational education from 26.3% (2018) to 50% by 2035. The policy envisages broad based, multi-disciplinary, holistic Under Graduate education with **flexible curricula, creative combinations of subjects, integration of vocational education and multiple entry and exit points with appropriate certification**. UG education can be of 3 or 4 years with multiple exit options and appropriate certification within this period.

In addition, an **Academic Bank of Credit** is to be established for digitally storing academic credits earned from different HEIs/industries/R&D so that these can be transferred and counted towards final degree earned. **Multidisciplinary Education and Research Universities (MERUs)**, at par with IITs, IIMs, is proposed to be set up as models of best multidisciplinary education of global standards in the country.

Higher education institutions (HEI) will be transformed into large, well resourced, vibrant multidisciplinary institutions providing high quality teaching, research, and community engagement. The definition of university will allow a spectrum of institutions that range from **Research-intensive Universities** to **Teaching-intensive Universities** and **Autonomous degree-granting Colleges**. Affiliation of colleges is to be phased out in 15 years and a stage-wise mechanism is to be established for granting **graded autonomy** to colleges. Over a period of time, it is envisaged that every college would develop into either an Autonomous degree-granting College, or a constituent college of a university.

NEP makes recommendations for motivating, energizing, and building capacity of faculty through clearly defined, independent, transparent recruitment, freedom to design curricula/ pedagogy, incentivising excellence, movement into institutional leadership. Faculty not delivering on basic norms will be held accountable.

Open and Distance Learning will be expanded to play a significant role in increasing GER. Measures such as online courses and digital repositories, funding for research, improved student services, credit-based recognition of MOOCs, etc., will be taken to ensure it is at par with the highest quality in-class programmes. A comprehensive set of recommendations for promoting online education consequent to the recent rise in epidemics and pandemics in order to ensure preparedness with alternative modes of quality education whenever and wherever traditional and in-person modes of education are not possible, has been covered. An autonomous body, the National Educational Technology Forum (NETF), will be created to provide a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration. Appropriate integration of technology into all levels of

education will be done to improve classroom processes, support teacher professional development, enhance educational access for disadvantaged groups and streamline educational planning, administration and management.

In the light of NEP-2020, the teacher is at the centre of the fundamental reforms in the education system. This policy aims to re-establish teachers, at all levels, as the most respected and essential members of society. Efforts have been made to empower teachers and help them to do their job as effectively as possible. The new education policy is going to be a game changer for recruiting the very best and brightest to enter the teaching profession at all levels, by ensuring livelihood, respect, dignity, and autonomy, while also instilling in the system basic methods of quality control and accountability. Overall the academic culture of faculty in HEI involves: teaching, research, service as per vision and mission of HEI.

Most of the time faculty load includes: HEI governance aspects and service to society. The additional responsibilities may vary based upon involvement in assigned task completion. In present situation for most of HEIs following are some of the common challenges: Decreased funding for R & D, Downsizing of faculty, Increased workloads, etc.

These conditions impact all faculty, so in present circumstances, there is a need to make Mentoring Relevant. This is more relevant as conventional serviced-focused and less research intensive institutes are shifting their mission and purpose of teaching to a scholar-teacher model for research and development. In past two decades several theories have been applied world-wide for mentoring relationships in higher education, but few theories incorporate the elements of organizational change for faculty–student relationships. **It has been observed that mentoring programs cannot be imposed, but instead, must be created, nurtured, and sustained by those individuals involved.**

A National Mission for Mentoring will be established, with a large pool of outstanding senior/retired faculty – including those with the ability to teach in Indian languages – who will be willing to provide short and long-term mentoring/professional support to university/college teachers.

It is in this context that NITTTR, Chandigarh in collaboration with other three NITTTRs and INFLIBNET organized a Panel Discussion on ‘**Making Mentoring Relevant: NEP 2020 Perspective**’ on 21st September, 2020, wherein about 25 Vice- Chancellors, Directors of leading Universities/Institutes dwelled on four themes: **Road-map for Inclusive Teachers Mentoring; The Science of Mentoring Relationship; Setting Standards for Teacher Educators; and, Challenging Challenges in Teachers Mentoring.** The panel discussion was the call of the Joint Secretary (Admn), MoE, GOI to have discussions with institutes/universities under higher education to develop a predictable, acceptable roadmap in terms of inclusive teacher mentoring. In addition, as a follow up, brainstorming sessions were organized by

NITTTR, Chandigarh on 24-25 September, 2020 wherein the task force members and the faculty members discussed various issues concerning teacher mentorship. NITTTR, Chandigarh will develop a roadmap for making mentoring relevant and prepare a document to be submitted to Ministry of Education, Govt. of India. Now, we present below the discussed theme-wise plan of actions towards making Mentoring relevant in the context of NEP 2020 Perspective.

Prof Maitreyee Dutta welcomed all the dignitaries who took part in the panel discussion and invited Prof. SS Pattnaik, Director NITTTR Chandigarh to welcome the Honourable Guests.

Prof. SS Pattnaik Director NITTTR Chandigarh formally welcomed, on the

behalf of the Organising Committee, the Guest of Honour, Prof Sanjay Govind Dhande, Former Director of IIT Kanpur, Chairman, BoGs, NITIE Mumbai, the Directors of NITTTR Bhopal, NITTTR Chennai, NITTTR Kolkata, Director, INFLIBNET Gandhinagar, all the Vice-chancellors and Directors present in the online panel discussion. He pointed out the SMARTER (Specific, Measurable, Attainable, Relevant, Time Bound, Effective and Resource oriented) strategy while setting goals for mentoring. Prof Pattnaik deliberated that silo approach can't work and stressed on the collaborative approach. He focused on the points that NITTTRs have the potential to develop a roadmap for making mentoring relevant and urged all the Vice-chancellors and directors for contributing towards four themes for making mentoring relevant and preparing a document to be submitted to MOE. While emphasizing collaborative approach, he reminded all by stating 'Partnership builds strength, Networking creates wealth and Empowering leads success". Prof Shyam Sundar Pattnaik very emphatically told that since independence for the first time in the country, an education policy has been launched as NEP-2020 which provides boundless opportunities, freedom, creative and innovation to make our country strong and atmanirbhar. So, we should not miss this lifetime opportunity. Prof Pattnaik also discussed on short-term, mid-term and long-term goals setting.



A well-known academician **Prof. Raj Kumar, Vice Chancellor of Panjab University Chandigarh** emphasized on the importance of the mentoring system, which is very important not only for the management system, but for all the streams. The system will create conducive environment for the holistic development of the mentee as he/she feels being guided by the mentor. In addition, he focused on the outcome of the



mentoring system, where mentor can connect with the mentee in such a manner that there should be lasting effect on the mentee. Since we are in the process of following PPP mode, the role of alumni in development of institutions needs to be taken care of. Finally, he urged educational institutions to be focused and start for the implementation of the NEP-2020 by having short term and long-term objectives. He envisioned the scope ahead for institutes/universities of our country in bringing the changes through successful implementation of New Education Policy 2020.

A very renowned academician, known academic administrator, creator of many academic leaders and scientist **Prof Sanjay Govind Dhande, Former Director of IIT Kanpur, Chairman, NITIE Mumbai** was the Guest of Honour for this event. While discussing the challenges in the implementation of NPE



2020, he emphasized that in Indian Education System, academicians and institutes are autonomous at their own and are not actively interacting with each other. He further pointed out that the affiliation system is like a cancer to the higher education system. Universities have hundreds of affiliating colleges, but create a very mediocre output. In addition, faculty members are not enough available in terms of quality and in terms of proper remuneration. Thus, there is a need to nurture and have best quality faculty as students are interested in placement, management, IT etc. and are not interested in teaching. We need to catch the young people when they are energetic and interested in learning, and urged to inculcate the spirit of teaching in them. Mentoring is multi-dimensional, i.e., it could be mentoring of an institution or an individual. He advocated the mentoring of all the faculty of all the educational institutions, be it a technical or non-technical, public or private, residential or non-residential institute. He stressed on the inclusive teachers mentoring. He urged the NITTTRs to plan a programme for teachers at large and interact with them, if they are interested to hone their skills – knowledge of psychology, philosophy of education, assessment of students, digital pedagogy.

Prof Dhande further urged to mentor students for academic positions. As such, mentoring of institution is the need of hour. It is not creating a xerox copy of each other. It is not dictating or commanding the mentee, rather it is engaging each other and learning from each other. Mentor and mentee relations in case of institutions need to be on equal footing. He said the goal of mentoring is to create a vibrant academic atmosphere and the NITTTRs can contribute immensely for mentoring teachers of HEIs.

Prof. JP Singh Joorel, Director, INFLIBNET Gandhinagar presented the formal vote of thanks to all the dignitaries during the inauguration of the event.

To conclude, the main highlights of the inaugural session are:

- Use of SMARTER (Specific, Measurable, Attainable, Relevant, Time Bound, Effective and Resource oriented) strategy while setting goals for mentoring.
- Create collaborative roadmap
- Set short-term, mid-term and long-term goals
- Alumni to be part of mentoring process
- Mentoring system, is not only important for the management system, but for all the streams.
- A huge scope is ahead for institutes/universities of our country in bringing the changes through successful implementation of New Education Policy 2020.
- Affiliation system is like a cancer to the higher education system as Universities with hundreds of affiliating colleges create a very mediocre output.
- Quality Faculty members with acceptable remuneration are not available in abundance to cater to the growing enrolment ratio in HEIs, thus, there is a need to nurture and have best quality faculty as students are interested only in placement, management, IT etc. and are not interested in teaching.
- Mentoring is not creating a xerox copy of each other. It is not dictating or commanding the mentee, rather it is engaging each other and learning from each other.
- NITTTRs have the potential to develop a roadmap for making mentoring relevant by planning programmes for teachers to hone their skills in educational psychology, philosophy of education, assessment of students, digital pedagogy, etc.

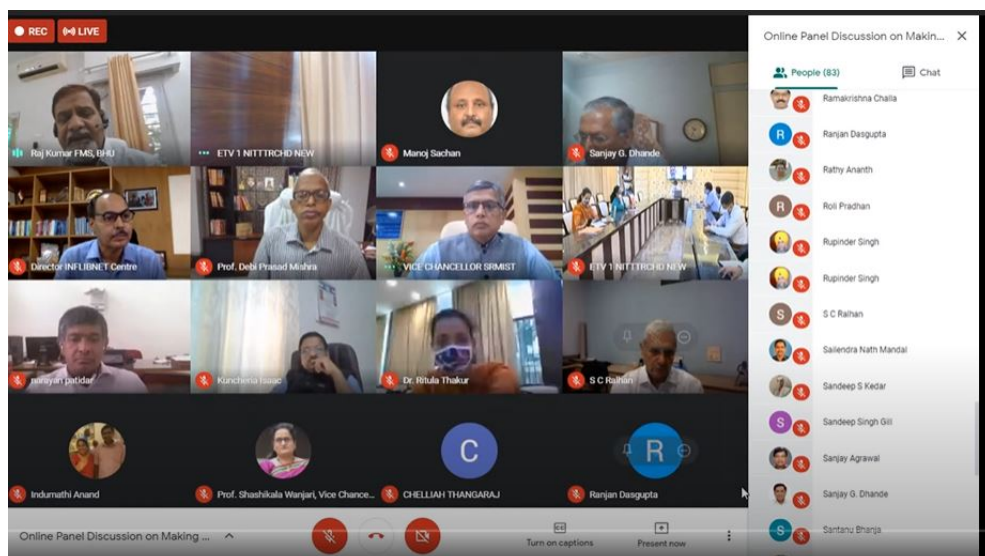
2. THEME 1: ROAD-MAP FOR INCLUSIVE TEACHERS MENTORING

Chairman: **Prof Sanjay Govind Dhande**, Former Director of IIT Kanpur, Chairman, NITIE Mumbai

Panelists: **Prof Raj Kumar**, Vice Chancellor, Panjab University, Chandigarh
Dr. Sandeep Sancheti, Vice Chancellor, SRM Institute of Science and Technology (SRMIST), Kattankulathur, Chengalpattu, Tamil Nadu
Dr. Kuncheria P. Isaac, Former Vice Chancellor, APJ Abdul Kalam Technological University Kerala
Prof Saikat Maitra, Vice Chancellor, Maulana Abul Kalam Azad University of Technology, Kolkata (did not participate)
Prof SR Kulkarni, Vice Chancellor, Sardar Patel University Gujarat (did not participate)
Prof Sanjeev Jain, Director, IIITDM Jabalpur and Former Vice Chancellor Vaishnav University, Katra (did not participate)

Coordinator: **Prof SS Pattnaik**, Director, NITTTR Chandigarh

Literature review has indicated immense benefits of mentoring relationship to both the individual in specific and the organization in general, like Improved academic performance; Improved academic self-efficacy; Improved interpersonal communications; Improved psychosocial support; Improved time management etc. It is a known fact that there are large variations among teachers' quality, so there is a need to propose a Road map for inclusive teachers mentoring.



Prof. Dhande outlined that Indian education system is like Silos with very rigid boundaries, which hinders professional growth of teachers. In addition, the present education system was highlighted in form of affiliation system in our traditional universities. He pointed out that we have to be very careful for HEI faculty quality, remuneration aspects and mentoring of teacher is really a difficult job. He emphasized on the point that how we will get good people in academia and put light on attitude of individual to become good teacher.

He has also pointed out on need for mentoring individuals and institutes with special focus on inclusive teacher mentoring. Prof. Dhande hoped that NITTTRs would contribute towards guiding teachers by creating academic training programmes in the areas of educational psychology, educational technology, educational management through online/blended modes. Since for teachers, skill and knowledge both are important and many teachers lack in skills which may be provided to them through some training. Further by citing current Covid-19 situation, he emphasized on knowledge of psychology, latest technology to handle students through online mode.

He focussed on establishing Indian Education Services (IES) for students and teachers on the lines of NCC & NSS. Mentoring is not a one-way street. The NITTTRs with new model for all colleges can support in a big way for mentoring all teachers. Mentoring is multi-dimensional, i.e., it could be mentoring of an institution or an individual, i.e., all the faculty of all the HEIs, be it a technical or non-technical, public or private, residential or non-residential institute. As such, we need to bring private, public, affiliated, non-affiliated institutes together for inclusive growth. Affiliation system is like a cancer to the higher education system as Universities with hundreds of affiliating colleges create a very mediocre output. Mentoring is not creating a xerox copy of each other. It is not dictating or commanding the mentee, rather it is engaging each other and learning from each other.

Prof. Sandeep Sancheti, Vice Chancellor, SRM Institute of Science and Technology highlighted that if we have situations/cases that teachers come up by chance in this profession, we have to make them by choice. For better implementation of NEP 2020, the teachers have to become learner just similar to the concept of flipped classroom. If something is not known to him/her, no need to feel uncomfortable in class, just become learner and come up again with better understanding. Secondly teachers are no more teachers. We may call them mentors, facilitators, coach etc. He pointed out changing role of teachers as more enterprising, having multiple roles. Some of the best practices may be:

- Teacher need to constantly charge himself through FDP/ training programmes, at least one programme per semester.
- Time for industry connect. There should be faculty industry programme. In summer vacations, teachers should be sent to industry for 1 to 2 weeks and integrate industry best practices in teaching and research.

Prof Dinesh Kumar, Vice-Chancellor, JC Bose University of Science & Technology, YMCA, Faridabad narrated mentoring example from Bhagavad Gita. He pointed out that for Arjun, Guru was Dronacharya and mentor was Lord Krishna. Further, there are large variations among teachers' quality, so inclusive road map is required. The HEIs need to carryout training need analysis and develop a data base for mentoring the faculty in various streams. There is a need to know how teachers, departments, administrative staff can be mentored. One example was quoted for teachers that if syllabus or subject is changed, they are uncomfortable. To solve this

issue, teachers need to go to industry and observe the process and practices and use the inputs for motivating the students. Finally, for better results we need to generate eco system.

Dr. Kuncheria P. Isaac, Former Vice Chancellor, APJ Abdul Kalam Technological University Kerala explained the definition of mentor by citing note of Bill Gates and his parents. He pointed out that mentor is a wise and trusted councilor. For better mentorship programme, first we need to decide that what is the desired outcome? How we are going to apply technology in mentorship? How teachers need to be trained in different way? We should reduce lecture delivery and make it project base. Teacher will need to do some project. Mentor will find out what are his problems while evaluating the project and try mentoring on one-to-one basis

Prof. Pattnaik outlined national mission of mentoring is clearly on quality of teaching learning. He presented a new terminology for society learning as Socio-Digital Pedagogy. He sighted one example of Nalanda University with 10000 students and 3000 teachers with Teacher Student Ratio (1:3) for personalized learning and multi-entry multi exit system in ancient Indian system.

During concluding remarks **Dr. Sandeep Sancheti** outlined that one need to train in all aspects by giving example of AI and VR for teaching history. Teachers have to become learner-co-learner for success. In some aspect young teacher may have inadequate knowledge, for example as a young teacher how to handle a team? How to go for purchase? These things may be provided as a refresher course for such young teachers. Finally, **Prof. Dhande** outlined that every teacher must register for one course in a semester. He quoted that if you are a good student, you are good teacher and hence can contribute better for society.

To conclude, there are immense benefits of mentoring relationship to both the individual in specific and the organization in general. The following roadmap will prove effective towards making mentoring relevant in HEIs:

- Some mechanism will be devised to catch the young people when they are energetic and interested in learning, and inculcate the spirit of teaching in them.
- For better mentorship programme, it is essential to maintain mutual faith and trust between mentor and mentee. In addition, we need to decide what is the desired outcome? How we are going to apply technology in mentorship? How teachers need to be trained in different ways? We need to mentor the teachers to reduce lecture delivery and make it project base. Mentor will find out what are his problems while evaluating the project and try mentoring on one-to-one basis
- Create a platform whereby academicians, institutes, industries, autonomous at their own, can actively interact with each other.
- Current Covid-19 situation has emphasized to mentor teachers in educational psychology, latest technology to handle students through online mode.

- HEIs will carry out the training need analysis and develop a data base for mentoring the faculty in various streams.
- Mentorship will provide teacher opportunities to constantly charge himself/herself through FDP/ training programmes, at least one programme per semester.
- Mentoring will be at every level (for newly recruited teachers, Middle level teachers and senior teachers).
- Identification and mapping of mentors and mentee is very important
- Auditing (Assessment and Evaluation) of mentors are necessary at every stage.
- Creating a clear outline of socio-digital-pedagogy.

3. THEME 2: THE SCIENCE OF MENTORING RELATIONSHIP

Chairman: **Shri SC Ralhan**, Chairman, Dr BR Ambedkar National Institute of Technology, Jalandhar

Panelists: **Prof CL Chandan**, Vice Chancellor, Sardar Balabh Bhai Patel Cluster University, Mandi (HP)

Dr Rajasree MS, Vice Chancellor, Dr. APJ Abdul Kalam Technological University, Thiruvananthapuram

Prof Rajbir Singh, Vice Chancellor, MD University, Rohtak (didn't participate)

Dr K. Pitchumani, Vice Chancellor, Manonmaniam Sundaranar University, Tirunelveli, TN

Dr Dhiraj Bora, Vice Chancellor, Tetelia Road, Near Assam Engineering College, Jalukbari, Guwahati

Prof. Chita Ranjan Tripathy, Vice Chancellor, Biju Patnaik University of Technology, Rourkela (did not participate)

Prof. Jayant Sonwalkar, Vice Chancellor, Madhya Pradesh Bhoj (Open) University

Prof. Akhilesh Kumar Pande, Vice Chancellor, Vikram University, Ujjain

Coordinator: **Prof SN Panda**, Director, NITTTR Chennai

Mentoring is a learning relationship between individuals who collaborate and share mutual responsibility and accountability for helping the mentee work toward the fulfilment of clearly and mutually defined organisation goals. It can be used to assist individuals at specific stages of development and lasts for a sustained but a definite period of time. The mentoring relationship provides an opportunity to both parties for their growth & development and, thus, can be of mutual benefit. Source: (Zachary, 2002:28). Especially, for new employees, mentoring sessions can help them gain a better understanding of the organization, its goals and advancement criteria. In other words, it is a "voluntary relationship that exists between a person of lesser experience and a person of greater experience that is based on mutual trust and respect".

New employees or those who are undertaking new roles and are not performing to meet organizational goal(s), need someone to identify their potential and show them what they must do to develop personally and professionally. By improving their skill sets and appreciating their good work, a mentor will make the employee feel great.

Now let us know '**Who is a Mentor?**', and '**Who is a Mentee?**'

A mentor is "Anyone who offers knowledge, insight, perspective, or wisdom that is helpful to another person in a relationship which goes beyond duty or obligation." Characteristics of a good mentor are: (a) Spot the Potential & Believe in Others, (b) A Networked & Resourceful Guide, (c) Displays Patience and Tolerance, (d) Gives Encouragement, (e) Sees the Big Picture. As such the Mentor Roles are: Listen, Share experiences, Foster skill building, Refer and network, Be one of many influences.

On the other hand, **a mentee is** "Anyone who wants to learn from someone who knows and seeks their valuable advice in order to grow professionally and/or personally." Or, "anyone who has the desire to gain from someone else's experience through a period of guidance and support". Characteristics of a good mentor are: (a) Goal-oriented, (b) Seeks Challenges, (c) Takes Initiative (d) Shows Eagerness to Learn, (e) Accepts Personal Responsibility. As such the Mentee Roles are: Active participant, Retain critical faculties, Seek new capacities, not just knowledge, Remain open to multiple influences, Own responsibility for success.

There are a few myths, associated with mentoring which needs to be understood before starting the mentoring relationship:

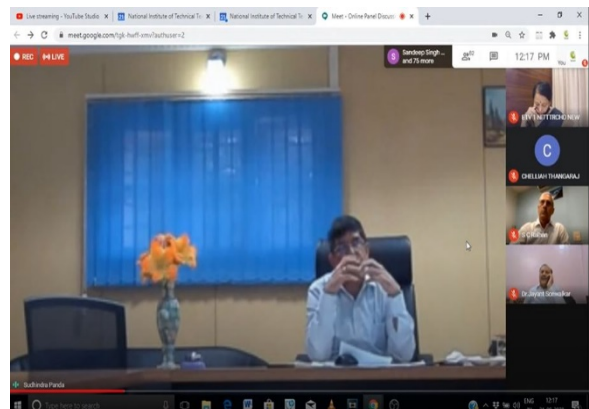
- **Mentoring is a one-way traffic.** Here, both mentor and mentee benefit from each other's strengths and experiences.
- **A mentoring relationship can only be face-to-face,** which may not always be possible. E-mails, ICT or phones can also be used.
- **Mentoring can work only with one mentor at a time.** Different mentors provide unique knowledge to the mentee, hence more than one mentor can offer varied learning experiences.
- **Mentoring relationship begin on its own.** It is the mentee, who chooses a mentor he/she respects and trusts to help him/her reach his/her goals.
- **Mentors must be older.** Age is not a qualification or a disqualification from being a mentor. Mentors should be chosen for their understanding, skill, and capacity to share what they know based on the mentee's own professional development needs.



Shri SC Ralhan, Chairman, BoGs, Dr BR Ambedkar National Institute of Technology, Jalandhar chaired the session by congratulating NITTTRs for organizing panel discussion on an important topic. He stressed the need of teacher coordinating with industry in order to understand the expectations of industry from their students.



Prof SN Panda, Director, NITTTR Chennai and the coordinator of the theme raised certain questions for the panel discussion related to mentoring relationship such as what is effective mentorship? What are the impacts of mentoring? What makes mentoring effective in terms of Aatm Nirbhar Bharat? What are the benefits of role modelling and importance of resources for effective mentoring?



Prof CL Chandan, Vice Chancellor, Sardar Balabh Bhai Patel Cluster University, Mandi (HP) said that New Education Policy is transforming education system for making India a supreme power. He told that we have a large pool of good teachers who enable next generation. But on joining the teaching profession, some teachers due to lack of guidance/mentoring find difficulty in adapting to the new environment and think of leaving the profession. He stressed on the need of strengthening Human Resource Development and integrating them in the mentoring process.

Dr. Rajasree MS, Vice Chancellor, Dr. APJ Abdul Kalam Technological University, Thiruvananthapuram expressed the need for an ecosystem at institution level. She said that since the needs of students vary from student to student, thus needs for mentoring will be very different depending upon their needs. Elaborating the mentoring role in Atam Nirbhar Bharat, she explained that since a student's potential is identified by the mentor, the mentee can be groomed if he has the potential for entrepreneurship. The role model can be a synergy of institution mechanism. Elaborating the support for mentorship in the form of resources, she suggested the mentorship should get funding from National Research Funding and should not be treated in isolation.

Prof. K. Pitchumani, Vice Chancellor, Manonmaniam Sundaranar University, Tirunelveli, TN expressed that growth of a mentee can be monitored periodically. He explained the various qualities of mentor such active listener, enthusiastic, visionary, good communication skills, compassionate, ready to share their experience. On the other hand, the mentee should trust the mentor, truthful, punctual and accept criticism.

Dr Dhiraj Bora, Vice Chancellor, Tetelia Road, Near Assam Engineering College, Jalukbari, Guwahati told that mentorship is taken as an activity in which mentor is engaged to help the next generation and carry forward knowledge. Mentorship relationship is created intentionally and developed later on. It could have good or bad outcomes, could be effective or dysfunctional. In the exchange of knowledge, both are benefitted. He expressed few common areas in the process of mentorship such as: (a) Mentor can help the individual to grow and reach a goal, (b) The support to student can be in the form of career development, psycho-social support, (c) Skill development among the students, (d) Sponsorship.

Since multi-faceted talent is to be groomed in a mentee, there can be more than one mentors for a mentee. New Education Policy 2020 throws open doors for liberalisation of education as vocational training is provide at tender age at school level itself. In today's time, apart from direct mentor relationship, there is also virtual mentoring. He expressed that teaching methodology must be prepared in this direction.

Prof. Jayant Sonwalkar, Vice Chancellor, Madhya Pradesh Bhoj (Open) University stressed the role of NITTTRs in creating ecosystem of mentoring. He said that competencies of teachers at international level should be identified. He raised certain issues which must be identified in mentoring relationship: (a) What is the requirement to become an international level teacher? (b) Whether the mentor will be from international fraternity or from India? (c) A matchmaking should be done properly before the mentoring can be actually started. NITTTRs have to create a large inventory of mentors and mentees (d) Timely evaluation of mentoring is a must.

The background, personality, cultural background of mentee should be kept in mind before deciding a mentor for a mentee. The mentoring relationship can be in the form of personal, emotional or socio-psychological. The mentor has to be accepted by the mentees so that a sense of belongingness is there. He expressed that if we are able to create international level mentors, then it would be justified for implementing New Education Policy.

Prof. S. Thamarai Selvi, Vice Chancellor, Thiruvalluvar University, Vellore, Tamil Nadu expressed her views on Industry 5.0, Education 5.0 and Industry 5.0. She said that in present digital and societal transformation, a proper balance of face-face and online teaching learning is required. In digital era, it is possible to make effective utilisation of talent. International mentorship is possible. She also expressed that resources are required to collaborate with different institutions. She told that although online resources are available, it is the duty of mentor to guide the mentee about relevant online resources.

To conclude, the main highlights of the theme are:

- There is a need for the teachers to coordinate with industry in order to understand the expectations of industry from their students.
- Some teachers due to lack of adequate guidance/mentoring find difficulty in adapting to the new environment and think of leaving the profession.
- Mentoring needs vary from teacher to teacher and student to student. Hence, a systematic training needs analysis will identify the mentoring of teachers in various areas.
- Qualities of mentor include: active listener, enthusiastic, visionary, good communication skills, compassionate, ready to share their experience. On the other hand, the mentee should trust the mentor, truthful, punctual and accept criticism.
- Mentoring relationship does not begin on its own. It is the mentee, who chooses a mentor he/she respects and trusts to help him/her reach his/her goals.
- Different mentors provide unique knowledge to the mentee, hence more than one mentor can offer varied learning experiences.
- Competencies of teachers at international level should be identified.
- NITTTRs have to create a large inventory of mentors and mentees and timely evaluation of mentoring is a must.

4. THEME 3: SETTING STANDARDS FOR TEACHER EDUCATORS

Chairman: **Prof S. Vaidhyasubramaniam**, Vice-Chancellor SASTRA DEEMED UNIVERSITY, Thanjavur, Tamilnadu

Panelists: **Prof Tankeshwar Kumar**, Vice-Chancellor, Guru Jambheshwar University of Science and Technology, Hisar

Dr Karisiddappa, Vice Chancellor, Visvesvaraya Technological University, Belgaum, Karnataka

Prof Arun K Pujari, Vice Chancellor, Central University of Rajasthan, Distt. Ajmer (did not participate)

Dr. Gurmeet Singh, Vice Chancellor, Pondicherry University, Puducherry

Dr. N. Panchanatham, Vice Chancellor, Tamil Nadu Teachers Education University, Chennai

Prof RK Pandey, Vice Chancellor Dr CV Raman University, Bhagwanpur, Vaishali, Bihar

Prof MK Verma, Vice Chancellor, Chhattisgarh Swami Vivekananda Technical University, Durg

Dr. Nitin Karmalkar, Vice Chancellor, Savitribai Phule Pune University, Pune

Coordinator: Prof C Thangaraj, Director, NITTTR Bhopal

During the last decade several professional standards describing competencies for teaching staff in higher education have been developed. Not all these standards are considered fruitful by the relevant professional communities of teachers and teacher educators. The development of standards for teacher educators has helped to distinguish the role of teacher educators from the role of other professionals in the education of teachers. A simple definition of *teacher educator* is anyone who educates teachers. More specifically, 'anyone who provides formal instruction or conduct research and development for educating prospective and practicing teachers' is termed as teacher educator. Developing standards for teacher educators may provide us better insight on who teach teachers, but there are more practical uses for the standards as well. The Standards might be an impetus for collecting data on the performance, expectations, and/or working conditions of teacher educators.

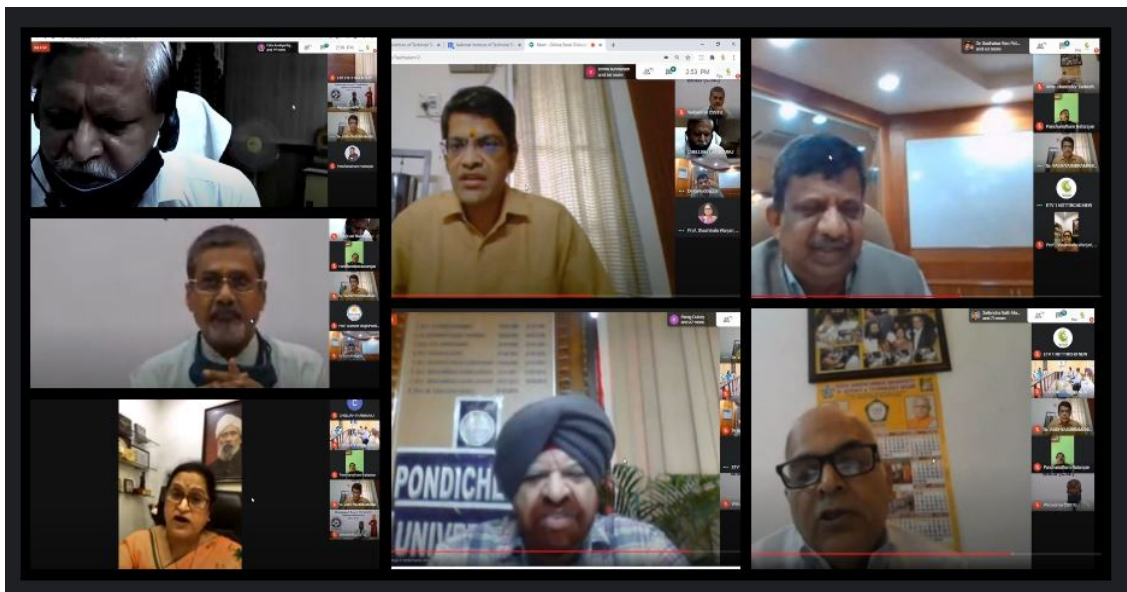
Form the literature, we have found some of the standards for teacher educators as detailed below:

- a) Interpersonal: creates a safe (working) atmosphere;
- b) Pedagogical: creates for teachers, an inspiring and stimulating learning environment and developing pedagogical techniques and assessment methods;
- c) Curriculum: introduces innovations, experiments, evaluation for building next generation curriculum, making it innovative and creative,
- d) Organisational: improvises if necessary; infrastructure, capacity building as transformational changes with collaborative efforts for creating ecosystem for support services
- e) Working with colleagues in the organisation: actively contributes towards the development and implementation of the organisation's outlook and policy;
- f) Working in a wider context: has a relevant network and keeps it up-to-date;

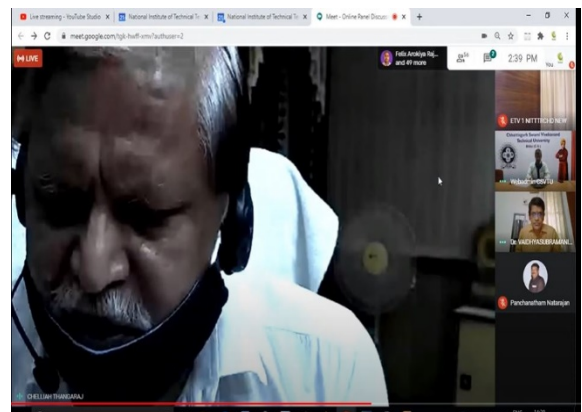
- g) Working for the society - contribution for socio- economic improvement by involving in outreach activities, research and consultancy services
- h) Working on your own development: reflects systematically on their own pedagogical approach and teaching behaviour towards students, colleagues and others.

Teachers are forever learning. The complex world of schooling today means that teachers need to keep learning so they can respond to the diverse needs of their learners. At the same time, teachers need to meet the regulations or 'standards' imposed on them by the ever-changing political landscape.

In this regard, we will focus on: (a) What kind of standards are to be set for teachers and what matrix should be maintained to measure the performance, (b) Will the system set be universal in nature for all education ecosystems? (c) How are we going to implement it? (d) What shall be the renewal and certification procedures?



Professor C. Thangaraj, Director, NITTTR Bhopal and the Coordinator of the theme set the background for the discussion and gave the wider contours for this session in which all the experts of the domain need to focus upon: (a) What kind of standards are to be set for teachers and what matrix should be maintained to measure the performance, (b) Will the system set be universal in nature for all education ecosystems? (c) How are we going to implement it? (d) What shall be the renewal and certification procedures?



Professor S. Vaidhyasubramaniam, Vice-Chancellor SASTRA DEEMED UNIVERSITY, Thanjavur, Tamilnadu

deliberated on preparing a mechanism that will put in place the teachers as educators. He emphasized that a teacher is an expert learner and stressed upon the strong and significant role that the teachers have to play and catalyses the implementation pathway of the New Education Policy. He



presented the four dimensions to set the standards for teacher educators for deciding implementation pathway: (a) the importance of self- the personal growth in career and research of the teachers, (b) the curriculum- building next generation curriculum, making it innovative and creative, developing pedagogical techniques and assessment methods, (c) the institution- transformational changes with collaborative efforts for creating ecosystem for support services, and (d) the society- contribution for socio-economic improvement by involving in outreach activities and consultancy services. In addition, he emphasised on filing of self-audit return by individual faculty to measure local, regional and national outcome. He emphasised on designing Institutional Mechanism to create autogenic training system and internalize it. The teachers should create knowledge warehouse for entire country.

Professor Tankeshwar Kumar, Vice-Chancellor, Guru Jambheshwar University of Science and Technology, Hisar, reinforced to setting up the standards for teachers and consider teachers as innovators. Teachers should go to industry for learning and do meaningful research to contribute to society.

Dr Karisiddappa, Vice Chancellor, Visvesvaraya Technological University, Belgaum, Karnataka contemplated: (a) design the matrix to determine the quality of teachers in terms of knowledge, skill-set, ethics and attitude, (b) teach the teachers, the science of teaching combined with learning psychology, (c) set up a Training Academy to groom the teachers, and (d) initiate Indian Teachers Services to groom the administrators for teaching profession. Further, he stressed on continuously monitored performance based promotion of faculty. To fulfil the aspirations of New Education Policy, self-motivated, passionate teachers were the true link.

Prof. Gurmeet Singh, Vice Chancellor, Pondicherry University, Puducherry appreciated NEP 2020 in giving right emphasis on learning in mother tongue. He was of the viewpoint that success of NEP will depend on teachers. Role of NITTTR should be mentally preparing the teachers to empower them to bring the transformation. The emphasis should not be only on degree but on the skill sets of the educators.

Dr. N. Panchanatham, Vice Chancellor, Tamil Nadu Teachers Education University, Chennai deliberated on: (a) identify the mechanism to give training to individuals for higher education teaching profession, (b) Presently, only four to five pedagogical

based training methods are being employed out of 158 methods, (c) The periodical feedback from students and all the stakeholders must be taken continuously, (d) The teachers shall make to visit top institutes in the world (with India) observing various aspects of teaching and research. He laid stressed on Reinforced Learning, experiential learning to share inherent vision of education ecosystem.

Professor MK Verma, Vice Chancellor, Chhattisgarh Swami Vivekananda Technical University, Durg enquired about the universality of the standards to be set for teacher educators. He put forward his thoughts of designing a framework to include research topics related to societal needs. The research should be channelized to translate socially applicable research. The training system should be zone- wise and eligibility criteria must be accomplished. The teachers should be selected from the pool of trained teachers.

Prof. Shashikala Wanjari, Vice Chancellor, SNDT Women's University, Mumbai emphasized on the ultimate aim of NEP is to bring change in educators by their holistic development, realization of self and experiential learning to make a responsible citizen. She laid the importance of developing matrix to highlight entire teaching learning process, develop a sense of patriotism and inculcate the value support system for comprehensive development of teachers.

The coordinator summarized the deliberations made by the panellists and gave the concluding remarks. NITTTRs have to focus on enhancing teachers' capabilities in terms of knowledge, skill-set and attitudes keeping the four domains of the education ecosystem in highlight. He laid stressed upon maintaining supply and demand balance for trained educators.

To conclude, the main highlights of the theme are:

- Prepare a mechanism for putting in place the teachers as educators.
- Various dimensions are identified to set the standards for teacher educators for deciding implementation pathway.
- Design the matrix to determine the quality of teachers in terms of knowledge, skill-set, ethics and attitude.
- Set up a Training Academy to groom the teachers, and initiate Indian Teachers Services to groom the administrators for teaching profession.
- Organize study visits for the teachers to observe various aspects of teaching and research in top class institutes in the world (with India).
- Design a framework to include research topics related to societal needs.
- Develop matrix to highlight entire teaching learning process, develop a sense of patriotism and inculcate the value support system for comprehensive development of teachers
- NITTTRs have to focus on enhancing teachers' capabilities in terms of knowledge, skill-set and attitudes keeping the four domains of the education ecosystem in highlight.
- Maintain supply and demand balance for trained educators.

5. THEME 4: CHALLENGING CHALLENGES IN TEACHERS MENTORING

Chairman: **Dr Bhushan Patwardhan**, Vice-Chairman, UGC, New Delhi

Panelists: **Prof Ajay Kumar Sharma**, Vice Chancellor, IK Gujral Punjab Technical University, Kapurthala

Prof Raghavendra P. Tiwari, Vice Chancellor, Central University of Punjab, Bathinda

Dr. S. Thamarai Selvi, Vice Chancellor, Thiruvalluvar University, Vellore (TN)

Dr. Sabu Thomas, Vice Chancellor, MG University, Kottayam, Kerala

Prof S. Srinivas Kumar, Vice Chancellor, Jawaharlal Nehru Technological University, Anantapur, Ananthapuramu (AP)

Prof Soumendra M Patnaik, Vice Chancellor, Utkal University, Vani Vihar Bhubaneswar, Odisha

Dr. Sunil Kumar Gupta, Vice Chancellor, Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal

Dr. Shashikala Wanjari, Vice Chancellor, SNDT Women's University, Mumbai

Prof JP Singh Joorel, Director, INFLIBNET Gandhinagar

Coordinator: **Prof Debi Prasad Mishra**, Director, NITTTR Kolkata

Development of nation requires development of citizens and development of citizens require quality education and quality education requires quality teachers. Quality education requires investment in initial and in-service teacher education and professional development. No educational institution is better than its teachers, but there is a huge shortage of qualified teachers available. Many quality teachers leave the profession due to low salaries, difficult working conditions and insufficient professional support. Both formal and non-formal teachers need to be trained with reference to nationally-agreed levels of competences.

In addition, some queries require clarification: (a) Why do I become a mentor? (b) Is it mandatory or choice-based mentoring? (c) Whether discipline wise mentors or interdisciplinary mentors are required? Thus, there is need to establish more teacher training institutions with multidisciplinary expertise. Mentoring relationships are dynamic in nature, and each one will be unique. It is important for both the mentor and the mentee to be proactive in the relationship so that the mentee gets the support they need for professional success. There are, however, several challenges that challenge any mentoring relationship.

Prof Debi Prasad Mishra, Director,
NITTTR Kolkata and Coordinator of the

the theme highlighted some of the challenges:

- (a) Changing teacher centric education to student centric education,
- (b) Changing listening classrooms to thinking classrooms,
- (c) Changing traditional learning to technology enabled learning,
- (d) Teaching technology to teachers,
- (e) Motivating teachers for passion of teaching,
- (f) Overcoming infrastructural limitations in institutions,
- (g) Need of Multidimensional/Multidisciplinary teachers,
- (h) Inculcating ethical and moral values in teachers,
- (i) Innovative and creative teachers.



**Dr. Bhushan Patwardhan, Vice-Chairman,
University Grants Commission, New Delhi**

shared few strategies to overcome the challenges:

- making classroom teaching student-centric,
- employing Collaborative learning strategies whereby teacher and students both co-learn,
- adoption of technology by teachers,
- use of Blended learning approach for teaching,
- NITTTRs like models are required for HEIs as they have played an excellent role in technical teachers training.



Views of **Prof Raghavendra P. Tiwari, Vice Chancellor, Central University of Punjab, Bathinda** suggested a few strategies: (a) Teachers should consider teaching

as full-time job, i.e., 24 hours rather than profession of only 8 hours, (b) Teachers should be available to students through different medias like email, WhatsApp, social media, etc. on 24x7 basis, (c) Requirement of self-motivated teachers: Teachers

should drive strength from rich Indian culture, (d) Teachers with full commitment towards nation building: Get inspiration from ancient culture of teaching.

Prof. Ajay Kumar Sharma, Vice Chancellor, IK Gujral Punjab Technical University, Kapurthala stated the following Challenges: (a) Need of qualified mentors, more teachers required with proposed increase in GER resulting in a greater number of mentors, (b) Matching of subject areas of mentors and mentee, (c) Requirement of Multidisciplinary teachers, (d) Focus on student learning, (e) Tight schedule of teachers with little time for undertaking mentoring activities, (f) Attitude of mentees towards being mentored: Possible conflict of roles, (g) Encouraging the innovation. He put forth a few solutions: (a) Senior/Retired teachers required for teachers mentoring, (b) Creation of common portal of senior/retired teachers, (c) Mentoring using ICT, (d) Mentors do the training need analysis of mentee requirements, (e) Teachers should be connected to professional bodies, (f) Learning priorities should be defined and effective feedback system, (g) Innovative strategies for innovation and use of online information.

Dr. Sabu Thomas, Vice Chancellor, MG University, Kottayam, Kerala suggested: (a) Common pool of mentors of outstanding personalities, (b) Development of universities of third age/stage: Network of senior/retired experts, (c) Good training to mentors: Knowledge of several aspects, mentors with good skills, (d) Continuous mentoring of teachers on different aspects of teaching, (e) Requirement of National level training for mentors, (f) Mentoring of the institutions/universities by panel of experts.

Prof. Sunil Kumar Gupta, Vice Chancellor, Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal highlighted the need of more qualified mentors as more teachers will be required with proposed increase in GER. We can have a common pool of mentors. There are challenges of cordial relationship between mentor and mentee: Psychological challenges for mentees; challenge of overcoming the personality conflict issues between mentor and mentee. Since NEP places teachers in different challenging roles, therefore training of teachers to meet these challenges is a critical task. Another challenge is in the selection and training of mentors. A mentor should be familiar with knowledge of emerging technologies as online teaching is more challenging. COVID has reinforced importance of technology in teaching, requirement of technology training of mentors.

Prof. Shashikala Wanjari, Vice Chancellor, SNDT Women's University, Mumbai emphasized that teacher has to understand role of mentors and holistic/quality education. Teacher and mentor are different. Mentor should adopt scientific ways for mentoring. Induction of teachers should be through professional training. Important role of mentors is to develop social/moral cohesion, adapting to situation. Mentors and teachers should be acquainted with science of mentoring and teaching. Challenge of maintaining inter-personal relations is essential in effective mentorship. Thus, there is a requirement of non-judgmental mentors.

Prof S. Srinivas Kumar, Vice Chancellor, Jawaharlal Nehru Technological University, Anantapur, Ananthapuramu (AP) elaborated that development of nation requires development of citizens and development of citizens require quality education and quality education requires quality teachers. Thus, we should select passionate teachers rather than individuals joining teaching because they have no other choice. We require a very large number of teachers in near future. Thus, there is need to establish more teacher training institutions with multidisciplinary expertise

Prof Soumendra M Patnaik, Vice Chancellor, Utkal University, Vani Vihar Bhubaneswar, Odisha distinguished between mentors and teachers. Not only hierarchal approach should be used while selecting mentors. Mentee should not be seen as receiving entity rather there should be hand holding of mentee.

Prof JP Singh Joorel, Director, INFLIBNET Gandhi Nagar put forth the following challenges: (a) Why do I become a mentor? Is it mandatory or choice-based mentoring? Whether discipline wise mentors or interdisciplinary mentors? There is a need to track the mentorship scheme and its outcome after few years. He suggested that best mentor can be provided using technology irrespective of location of the mentor and mentee.



Some of the challenges that challenge the teacher mentoring are listed below:

- Changing teacher centric education to student centric education
- Changing listening classrooms to thinking classrooms
- Changing traditional learning to technology enabled learning
- Lack of motivation in mentors
- Motivating teachers for passion of teaching
- Overcoming infrastructural limitations in institutions
- Need of Multidimensional/Multidisciplinary teachers
- Inculcating ethical and moral values in teachers
- Training of Mentor in the scientific ways of mentoring
- Creativity and innovation in mentoring
- Matching of subject areas of mentors and mentee
- Cordial relationship between mentor and mentee
- Requirement of Multidisciplinary teachers,
- Tight schedule of teachers with little time for undertaking mentoring activities
- Attitude of mentees towards being mentored: Possible conflict of roles
- Selection, training and incentivizing mentors

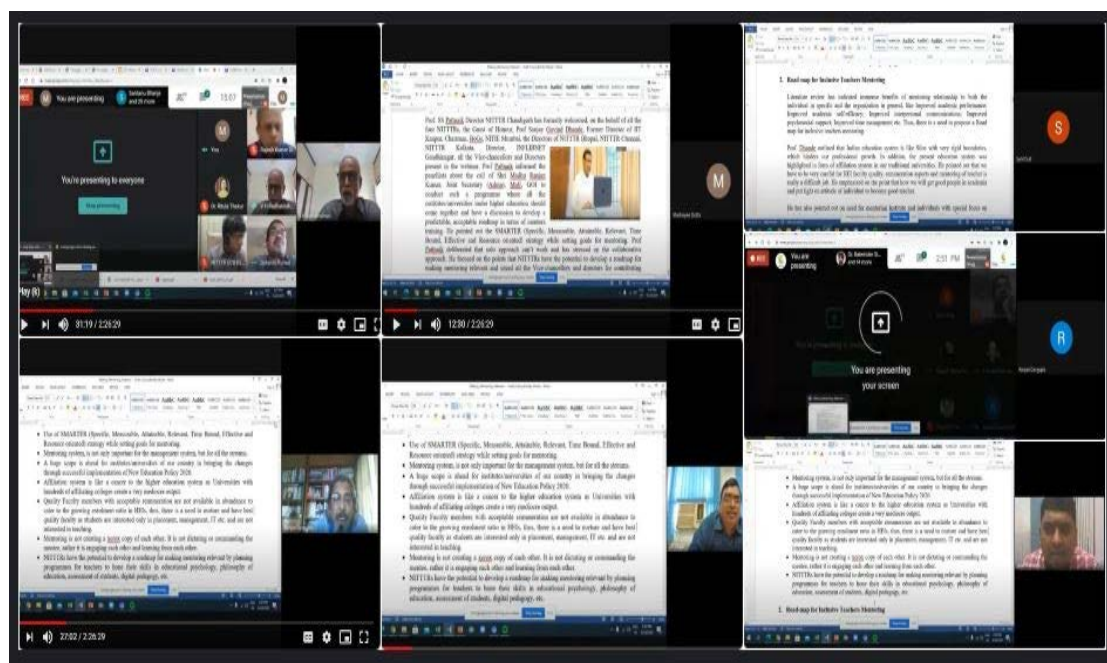
Few strategies to overcome the challenges are given below:

- Make classroom teaching student-centric by employing Collaborative learning strategies whereby teacher and students both co-learn.
- HEIs require more qualified mentors with the requirement of more teachers to meet the proposed increase in GER. Hence, a common portal of senior/retired teachers of outstanding personalities will be created.
- Mentoring of teachers in the use of digital technology
- Learning priorities should be defined and effective feedback system
- Innovative strategies for innovation and use of online information
- Prepare a pool of mentors and there should be a choice of mentor with mentee. Best mentor can be provided using technology irrespective of location of the mentor and mentee
- When identifying potential mentor, a mentee may look for the following traits: Job performance, Interpersonal Skills, and Learning Capacity
- Mentors require an understanding of complexities of mentoring science. As such there is a need to develop mentor guidelines and NITTTRs can contribute immensely in this direction.
- NITTTRs like models are required for HEIs as they have played an excellent role in technical teachers training.

6. OUTCOMES OF BRAINSTORMING SESSIONS

Brainstorming Sessions were organized by NITTTR, Chandigarh on 24-25 September, 2020 wherein the task force members and the faculty members of all the four NITTTRs discussed various issues concerning teacher mentorship.

During the session, the Rapporteurs (one from each of all the four NITTTRs) presented theme –wise proceedings of Panel Discussions held on 21.09.2020. The session was then open to Task Force members and faculty of all the NITTTRs. After detailed discussion, following points under various themes emerged out:



Theme 1: Road-map for Inclusive Teachers Mentoring

- Mentoring will help in preparing quality teacher right in the beginning (catching them fresh) and sharpening them at different levels of their career, on the lines of IAS academy/Police Academy/ Defence Academy.
- As a part of continuous professional development of teachers, every HEI needs to have its own Human Resource Development Centre with mechanisms for training and evaluation connecting it with performance and career development. Such framework needs to be aligned with national mission of teacher training.
- NITTTRs have already organised training programmes for mentors identified for providing training to technical teachers under National Initiative for the technical teachers' Training.
- There should be some provision for getting the service /support of excellent mentors to colleges /universities in the rural areas.
- It may be short term, long term mentoring, virtual but at the same time need based. Mentor and mentee relations in case of institutions need to be on equal footing.

Theme 2: The Science of Mentoring Relationship

- At different stages of professional growth as a teacher different kind of mentoring is needed, hence, requires plan accordingly.
- When identifying potential mentor, a mentee may look for the following traits: Job performance, Interpersonal Skills, and Learning Capacity.
- Mentors should require an understanding of complexities of mentoring science, so NITTTRs can play a significant role in this direction.
- Guidelines for mentors may be finalized.

Theme 3: Setting Standards for Teacher Educators

- Identify the standards/requirements to become an international level teacher.
- Qualities of mentor include: active listener, enthusiastic, visionary, good communication skills, compassionate, ready to share their experience. On the other hand, the mentee should trust the mentor, truthful, punctual and accept criticism.

Theme 4: Challenging Challenges in Teachers Mentoring

- There is a challenge of psychological issues between the mentor and mentee.
- Another challenge is of allowing the mentee a choice of choosing mentor who he/she trusts professionally as well as personally.
- Selection of mentors and incentivizing him/her is another challenge. Mentor needs to be a really passionate person in academics, willing to contribute to teaching learning system beyond the concern for remuneration.
- To create collaborative strategy through partnership and networking
- Prepare short-term, mid-term and long-term goals with clear implementation plan.

- Prepare a pool of mentors and there should be a choice of mentor with mentee. Best mentor can be provided using technology irrespective of location of the mentor and mentee.
- Mentors may be from industries/NGOs

7. RECOMMENDATIONS FOR MAKING MENTORING RELEVANT

Based upon the Panel Discussions followed by Brainstorming sessions, theme-wise recommendations are proposed as given below:

Theme 1: Road-map for Inclusive Teachers Mentoring

- Use SMARTER (Specific, Measurable, Attainable, Relevant, Time Bound, Effective and Resource oriented) strategy while setting goals for mentoring.
- Since quality faculty with acceptable remuneration are not available in abundance to cater to the growing enrolment ratio in HEIs, there is a need to nurture and have best quality faculty as students are interested only in placement, management, IT etc. and are not interested in teaching. Some mechanism will be devised to catch the young people when they are energetic and interested in learning and inculcate the spirit of teaching in them.
- For better mentorship programme, it is essential to maintain mutual faith and trust between mentor and mentee. In addition, we need to decide what is the desired outcome? How we are going to apply technology in mentorship? How teachers need to be trained in different ways? We need to mentor the teachers to reduce lecture delivery and make it project base. Mentor will find out what are his problems while evaluating the project and try mentoring on one-to-one basis
- Create a platform whereby academicians, institutes, industries, autonomous at their own, can actively interact with each other.
- Current Covid-19 situation has emphasized to mentor teachers in educational psychology, latest technology to handle students through online mode.
- HEIs will carry out the training need analysis and develop a data base for mentoring the faculty in various streams.
- Mentorship will provide teacher opportunities to constantly charge himself/herself through FDP/ training programmes, at least one programme per semester.
- After deciding the desired outcome of mentoring, better mentorship programmes will be floated.
- One mentee can have many mentors. He can choose the relevant mentors from the Mentor database. Mentee may have in-house mentors and external mentors. Mentors may be from Research Laboratories/industries/other organizations/NGOs.
- Mentoring will be at every level (for newly recruited teachers, Middle level teachers and senior teachers). It may be short term, long term mentoring, virtual but at the same time need based. Mentor and mentee relations in case of institutions need to be on equal footing.
- Guidelines for mentors may be finalized.
- Identification and mapping of mentors and mentee is very important

- Auditing (Assessment and Evaluation) of mentors are necessary at every stage.
- At present, most of the programmes and activities of all NITTTRs are in silo mode, hence collaborative efforts are required. NITTTRs would contribute to guide teacher by create academic training programmes for teachers.
- Exploring socio-digital-pedagogy for inclusivity.
- NITTTRs have the potential to develop a roadmap for making mentoring relevant by planning programmes for teachers to hone their skills in educational psychology, philosophy of education, assessment of students, digital pedagogy, etc. Since the general goal of mentoring is to create a vibrant academic atmosphere and the NITTTRs can contribute immensely for mentoring teachers of HEIs.

Theme 2: The Science of Mentoring Relationship

- Coordination of teachers with industry in order to understand the expectations of industry from their students.
- The background, personality, cultural background of mentee should be kept in mind before deciding a mentor for a mentee
- Identifying the requirements to become an international level teacher
- Mentoring those teachers who due to lack of adequate guidance/mentoring find difficulty in adapting to the new environment and think of leaving the profession.
- Practicing mentoring techniques as per the need of mentee as needs of mentee vary from one another. Hence, a systematic training needs analysis will identify the mentoring of teachers in various areas.
- Monitoring the growth of a mentee periodically.
- Qualities of mentor include: active listener, enthusiastic, visionary, good communication skills, compassionate, ready to share their experience. On the other hand, the mentee should trust the mentor, truthful, punctual and accept criticism.
- Carrying out a proper match-making between the competencies of a mentor and mentee's requirements before actually starting the mentoring process.
- New Education Policy 2020 throws open doors for liberalisation of education as vocational training is provided at tender age at school level itself. As such, mentorship will play a significant role in this direction.
- Mentoring relationship does not begin on its own. It is the mentee, who chooses a mentor he/she respects and trusts to help him/her reach his/her goals.
- Since multi-faceted talent is to be groomed in a mentee and different mentors provide unique knowledge to the mentee, hence more than one mentor can offer varied learning experiences.
- Deciding about duration/process of mentoring
- Identifying competencies of teachers at international level.
- NITTTRs contributions towards creating a large inventory of mentors and mentees and carrying out timely evaluation of mentoring.
- Devising a mechanism of mentoring teachers for a proper balance of face-face and online teaching learning. As such, it is the duty of mentor to guide the mentee about the availability of relevant online resources.

Theme 3: Setting Standards for Teacher Educators

- Identify various dimensions of the standards for teacher educators for deciding implementation pathway. These may focus on various dimensions of teaching, research and administrative duties, e.g., Instructional Planning, Delivery, & Evaluation; teachers as innovators; performing administrative duties, visits to industry for learning and doing meaningful research to contribute to society
- Prepare a mechanism for putting in place the teachers as educators.
- Design self-audit return tool to be filled by individual faculty for measuring local, regional and national outcomes.
- Design the matrix to determine the quality of teachers in terms of knowledge, skill-set, ethics and attitude.
- Set up a Training Academy to groom the teachers, and initiate Indian Teachers Services to groom the administrators for teaching profession.
- Identify the mechanism to give training to individuals for higher education teaching profession on pedagogy, students-centred instructional strategies, online teaching & learning, etc.
- Organize study visits for the teachers to observe various aspects of teaching and research in top class institutes in the world (with India).
- Design a framework to include research topics related to societal needs.
- Develop matrix to highlight entire teaching learning process, develop a sense of patriotism and inculcate the value support system for comprehensive development of teachers
- NITTTRs have to focus on enhancing teachers' capabilities in terms of knowledge, skill-set and attitudes keeping the four domains of the education ecosystem in highlight.
- Maintain supply and demand balance for trained educators.
- Design Quality standards.
- Design rubrics for measurable parameters in respect of quantifiable qualities and unquantifiable qualities.

Theme 4: Challenging Challenges in Teachers Mentoring

Some of the challenges that challenge the teacher mentoring are given below:

- Changing teacher centric education to student centric education
- Changing listening classrooms to thinking classrooms
- Changing traditional learning to technology enabled learning
- Lack of motivation in mentors
- Motivating teachers for passion of teaching
- Overcoming infrastructural limitations in institutions
- Need of Multidimensional/Multidisciplinary teachers
- Inculcating ethical and moral values in teachers
- Training of Mentor in the scientific ways of mentoring
- Creativity and innovation in mentoring
- There is need of greater number of qualified mentors as more teachers are required with proposed increase in GER,
- Matching of subject areas of mentors and mentee

- Cordial relationship between mentor and mentee: Psychological challenges for mentees challenge of overcoming the personality conflict issues between mentor and mentee.
- Requirement of Multidisciplinary teachers
- Tight schedule of teachers with little time for undertaking mentoring activities
- Attitude of mentees towards being mentored: Possible conflict of roles
- Selection, training and incentivizing mentors
- Recently, COVID has reinforced importance of digital pedagogy, requirement of emerging technologies, online/blended modes and flipped classroom etc., as such training of mentors in this direction is more challenging.

Few strategies to overcome the challenges are given below:

- Make classroom teaching student-centric by employing Collaborative learning strategies whereby teacher and students both co-learn.
- Make teachers accountable to be available to students through different media like email, WhatsApp, social media, etc. on 24x7 basis.
- adoption of technology by teachers,
- HEIs require more qualified mentors with the requirement of more teachers to meet the proposed increase in GER. Hence, a common portal of senior/retired teachers of outstanding personalities will be created.
- Mentors will carry out the training need analysis for identifying mentee requirements.
- Teachers should be connected to professional bodies,
- Learning priorities should be defined and effective feedback system,
- Continuous mentoring of teachers in the use of digital technology, viz., Blended learning approach, flipped classroom, Problem Based Learning, etc. for teaching
- Prepare a pool of mentors and there should be a choice of mentor with mentee. Best mentor can be provided using technology irrespective of location of the mentor and mentee
- When identifying potential mentor, a mentee may look for the following traits: Job performance, Interpersonal Skills, and Learning Capacity
- Not only hierarchal approach should be used while selecting mentors.
- Mentoring should be a part of academics. It should go along with academics. Mentor needs to be a really passionate person in academics, willing to contribute to teaching learning system beyond the concern for remuneration.
- As a part of continuous professional development, every institution need to have its own Human Resource Development Centre/Centre for Training and Development with policy, arrangements, mechanisms for training and evaluation connecting it with performance and career development. Such framework needs to be aligned with national mission of teacher training.
- Mentors require an understanding of complexities of mentoring science. As such there is a need to develop mentor guidelines and NITTTRs can contribute immensely in this direction.
- NITTTRs like models are required for HEIs as they have played an excellent role in technical teachers training.

8. SESSION-WISE EXPERTS:

10:00 - 10.05 hrs	Welcome to Guests, by Prof SS Pattnaik , Director, NITTTR Chandigarh
10:05 - 10.15 hrs	Address by Guest of Honour, Prof Sanjay Govind Dhande , Former Director of IIT Kanpur, Chairman, NITIE Mumbai
10:15 - 10.25 hrs	Key Note Address by Shri Madhu Ranjan Kumar , Joint Secretary (Admn), MoE, GOI
10:25 - 10.35 hrs	Address by Chief Guest
10:35 - 10.40 hrs	Vote of Thanks by Prof JP Singh Joorel , Director, INFLIBNET Gandhinagar

Theme 1: 10:45-12.05 hrs: ROAD-MAP FOR INCLUSIVE TEACHERS MENTORING

Chairman: **Prof Sanjay Govind Dhande**, Former Director of IIT Kanpur, Chairman, NITIE Mumbai

Panelists: **Prof Raj Kumar**, Vice Chancellor, Panjab University, Chandigarh
Dr. Sandeep Sancheti, Vice Chancellor, SRM Institute of Science and Technology (SRMIST), Kattankulathur, Chengalpattu, Tamil Nadu
Dr. Kuncheria P. Isaac, Former Vice Chancellor, APJ Abdul Kalam Technological University Kerala

Coordinator: **Prof SS Pattnaik**, Director, NITTTR Chandigarh

Theme 2: 12:10-13.30 hrs: THE SCIENCE OF MENTORING RELATIONSHIP

Chairman: **Shri SC Ralhan**, Chairman, Dr BR Ambedkar National Institute of Technology, Jalandhar

Panelists: **Prof CL Chandan**, Vice Chancellor, Sardar Balabh Bhai Patel Cluster University, Mandi (HP)
Dr Rajasree MS, Vice Chancellor, Dr. APJ Abdul Kalam Technological University, Thiruvananthapuram
Dr K. Pitchumani, Vice Chancellor, Manonmaniam Sundaranar University, Tirunelveli, TN
Dr Dhiraj Bora, Vice Chancellor, Tetelia Road, Near Assam Engineering College, Jalukbari, Guwahati
Prof. Jayant Sonwalkar, Vice Chancellor, Madhya Pradesh Bhoj (Open) University
Prof. Akhilesh Kumar Pande, Vice Chancellor, Vikram University, Ujjain

Coordinator: **Prof SN Panda**, Director, NITTTR Chennai

Theme 3: 14:40 - 16.00 hrs : SETTING STANDARDS FOR TEACHER EDUCATORS

Chairman: Prof S. Vaidhyasubramaniam, Vice-Chancellor SASTRA DEEMED UNIVERSITY, Thanjavur, Tamilnadu

Panelists: **Prof Tankeshwar Kumar**, Vice-Chancellor, Guru Jambheshwar University of Science and Technology, Hisar
Dr Karisiddappa, Vice Chancellor, Visvesvaraya Technological University, Belgaum, Karnataka
Dr. Gurmeet Singh, Vice Chancellor, Pondicherry University, Puducherry
Dr. N. Panchanatham, Vice Chancellor, Tamil Nadu Teachers Education University, Chennai
 Prof RK Pandey, Vice Chancellor Dr CV Raman University, Bhagwanpur, Vaishali, Bihar
Prof MK Verma, Vice Chancellor, Chhattisgarh Swami Vivekananda Technical University, Durg
Dr. Nitin Karmalkar, Vice Chancellor, Savitribai Phule Pune University, Pune

Coordinator: Prof C Thangaraj, Director, NITTTR Bhopal

Theme 4: 16:05-17.25 hrs CHALLENGING CHALLENGES IN TEACHERS MENTORING

Chairman: **Dr Bhushan Patwardhan**, Vice-Chairman, UGC, New Delhi

Panelists: **Prof Ajay Kumar Sharma**, Vice Chancellor, IK Gujral Punjab Technical University, Kapurthala
Prof Raghavendra P. Tiwari, Vice Chancellor, Central University of Punjab, Bathinda
Dr. S. Thamarai Selvi, Vice Chancellor, Thiruvalluvar University, Vellore (TN)
Dr. Sabu Thomas, Vice Chancellor, MG University, Kottayam, Kerala
Prof S. Srinivas Kumar, Vice Chancellor, Jawaharlal Nehru Technological University, Anantapur, Ananthapuramu (AP)
Prof Soumendra M Patnaik, Vice Chancellor, Utkal University, Vani Vihar Bhubaneswar, Odisha
Dr. Sunil Kumar Gupta, Vice Chancellor, Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal
Dr. Shashikala Wanjari, Vice Chancellor, SNDT Women's University, Mumbai
Prof JP Singh Joorel, Director, INFLIBNET Gandhinagar

Coordinator: Prof Debi Prasad Mishra, Director, NITTTR Kolkata

BRAINSTORMING SESSIONS PANELISTS

NITTTR Chandigarh

1. Prof Maitreyee Dutta
2. Prof Sunil Dutt
3. Prof Pankaj Sharma
4. Prof Rupinder Singh
5. Prof K G Srinivasa
6. Prof SS Gill
7. Prof SS Dhami
8. Dr. Balwinder Singh
9. Dr. Meenakshi Sood
10. Dr. Ritula Thakur
11. Dr. Harsh Wardhan Samalia

NITTTR Chennai

1. Dr. S. Renukadevi
2. Er. V. Sivakumar
3. Prof E S M Suresh
4. Dr. G. Janardhanan
5. Dr. P Malliga
6. Dr. Velu Shanmuganeethi

NITTTR Bhopal

1. Prof SS Kedar
2. Prof Ashmita Khajanchee
3. Dr. Anju Rawlley,
4. Prof Joshua Earnest,
5. Dr. J.P Tegar,
6. Dr. Kamlesh K Jain,
7. Dr. Susan S Mathew,
8. Dr. BL Gupta,
9. Dr. VH Radhakrishnan,
10. Dr. D Singh Karaulia,
11. Dr. Rajesh Kumar Dixit,
12. Dr. Ramesh Basavanappa Shivagunde,
13. Dr. Sanjay Agrawal,
14. Dr. Parag Dubey
15. Dr. Kiran Saksena
16. Dr. Aadesh Pande
17. Dr. Nitish Dubey

NITTTR Kolkata

1. Dr. Ranjan Dasgupta
2. Dr. S N Mandal
3. DR. Shantunu Bhanja
4. DR. S K Mandal
5. DR. J Mandal
6. DR. Habiba Hussain
7. Dr. Sagarika Pal
8. Dr. S K Naskar

Task Force Team

Prof Sunil Dutt, NITTTR Chandigarh
 Prof SS Dhami
 Prof Maitreyee Dutta, NITTTR Chandigarh
 Prof Rupinder Singh, NITTTR Chandigarh
 Prof Srinivasa KG
 Prof SS Gill
 Prof. V H Radhakrishnan, NITTTR Bhopal
 Dr. E S M Suresh, NITTTR Chennai
 Dr. Ranjan Dasgupta, NITTTR Kolkata
 Dr Ritula Thakuar, NITTTR Chandigarh
 Prof. B L Gupta, NITTTR Bhopal
 Dr. G. Janardhanan, NITTTR Chennai
 Dr. Sailendra Nath Mandal, NITTTR Kolkata
 Dr Meenakshi Sood, NITTTR Chandigarh
 Prof R K Dixit, NITTTR Bhopal
 Dr. P. Malliga, NITTTR Chennai
 Dr. Santanu Bhanja, NITTTR Kolkata
 Dr Balwinder Singh, NITTTR Chandigarh
 Prof. R B Shivagunde, NITTTR Bhopal
 Dr. V. Shanmuganeethi, NITTTR Chennai
 Dr. Soumitra Kumar Mandal, NITTTR Kolkata

Coordinating Institute

National Institute of Technical Teachers Training and Research
 Sector 26, Chandigarh 160 019

Collaborating Institutes

National Institute of Technical Teachers Training and Research, Bhopal
 National Institute of Technical Teachers Training and Research, Chennai
 National Institute of Technical Teachers Training and Research, Kolkata
 Information and Library Network [INFLIBNET] Centre, Gandhinagar

Panelists

Vice-Chancellors of reputed universities, Directors of all 4 NITTTRs and Director INFLIBNET shall participate in the panel discussion to chalk-out a roadmap to meet the challenges of Teacher Mentoring in the light of NEP 2020. Each session shall focus on one of the sub-themes. The panel discussion sessions will be chaired by the eminent personalities having outstanding contributions to education system.

Live Streaming Links & Tentative Schedule

YouTube Streaming Link: <https://youtu.be/2sSX05Hg6oE>

Direct Streaming Link: <https://stream.meet.google.com/stream/09a4f2e4-358e-4b66-bf27-6775b34f00b4>

Date : 21 September, 2020

10 am to 10.30 am: Inauguration

10.30 am to 11.30 am: Panel Discussion I

Theme: Road-map for Inclusive Teachers Mentoring

11.30 am to 12.30 pm: Panel Discussion II

Theme: The Science of Mentoring Relationship

3 pm to 4 pm: Panel Discussion III

Theme: Setting Standards for Teacher Educators

4 pm to 5 pm: Panel Discussion IV

Theme: Challenging Challenges in Teachers Mentoring

Organizing Coordinators

Prof (Dr) S. S. Pattnaik
Director
NITTTR Chandigarh

Prof (Dr) Sudhindra Nath Panda
Director
NITTTR Chennai

Prof (Dr) C. Thangaraj
Director
NITTTR Bhopal

Prof (Dr) Debi Prasad Mishra
Director
NITTTR Kolkata

Prof (Dr) JP Singh Joorel
Director
INFLIBNET Gandhinagar

Registration & Certification

- Open to all administrators and faculty of technical, professional and other higher education institutions
- No Registration Fee
- E Certificate to all the Attendees
- Registration Link: <https://forms.gle/9vymp46qoPGy92Uy9>

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NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH

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Organize

Online Panel Discussion on Making Mentoring Relevant: NEP 2020 Perspective 21-09-2020

Themes

- Road-map for Inclusive Teachers Mentoring
- The Science of Mentoring Relationship
- Setting Standards for Teacher Educators
- Challenging Challenges in Teachers Mentoring

About NITTTRs

In realization of the need for training better quality technicians to meet the large scale industrialization of the country, the ministry of Human Resource Development (the then Ministry of Education), Government of India established four Regional Technical Teachers' Training Institutes (now National Institute of Technical Teachers Training & Research, NITTTR at Bhopal, Chandigarh, Chennai and Kolkata in 1967. The Institutes were designed to meet the requirements of developing polytechnic education in the respective region. The NITTTRs have been providing Education and Training Programmes, Curriculum Development, Instructional Material Development, Research & Development, Extension Services and Consultancy in Technical Education and Technology areas.

About the Panel Discussion

The National Education Policy (NEP) 2020 aims to address the many growing developmental imperatives of our country and proposes the revision and revamping of all aspects of the education structure. The NEP 2020 envisions teachers at the centre of the fundamental reforms in the education system. It also uphold to empower teachers and help them to do their job as effectively as possible. The eminent panellists shall deliberate on the diverse role of Mentors of Teachers of Higher Education Institutions in NEP 2020 perspective.