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**INDUCTION AND MENTORSHIP FOR TEACHERS OF HIGHER EDUCATION**

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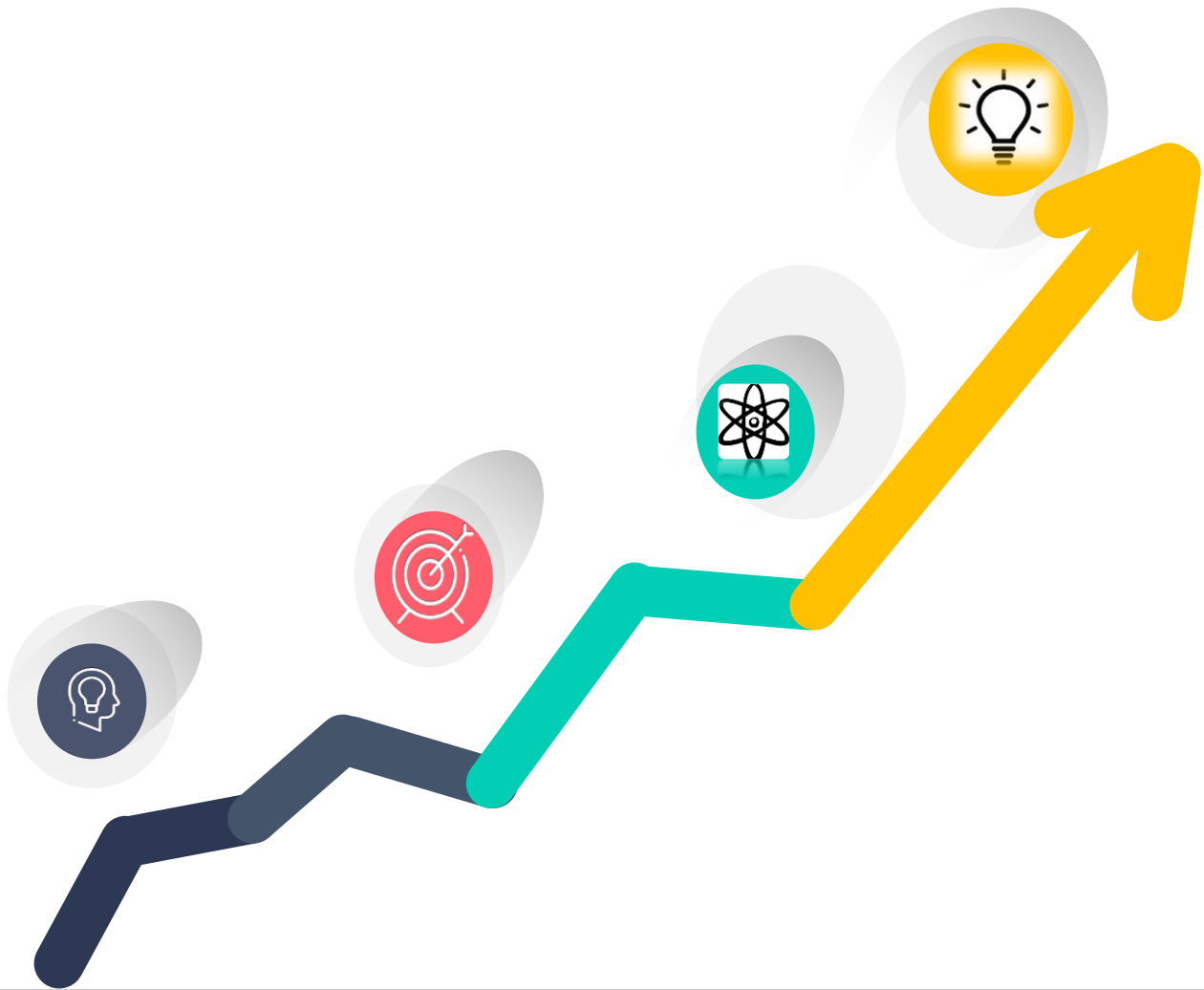
## **Guidelines**



**JANUARY 22, 2021**

**UNIVERSITY GRANTS COMMISSION  
Bahadur Shah Zafar Marg, New Delhi - 110002.**

# Mentor-Mentee Relation vis-a vis Life Long Learning



## PHASE-1

### FIRST Stage

- Register as Mentor
- SWOT analysis with the help of mentor
- The Pairing Process
- The mentor assists the beginning teacher in accomplishing specific tasks related to their new position and provides modelling of skills, sharing of strategies and observational feedback.

### SECOND Stage

MOOCs based Faculty Induction Program (FIP) /GURU DAKSHTA Programme in HRDCs or PMMMMNTT

## PHASE-2

TEACHER IS NO LONGER RELIANT ON THE MENTOR THE DISCIPLINE SPECIFIC FIELD TRAINING & FACULTY DEVELOPMENT PROGRAMMES FOR MIDDLE / TOP LEVEL ACADEMIC ADMINISTRATORS (Blended Mode)

## PHASE-3

Faculty Development Programme /Leadership Development Programme offered by HRDCs excluding Refresher Courses etc

## 1. CREATING THE ECOSYSTEM, CONTEXT, AND STRUCTURE FOR EFFECTIVE MENTORING IN HEIs

*All of us encounter many opportunities in our lives to either mentor, or be mentored; and in any mentoring relationship the responsibility to foster and guide the process falls to both the mentor and the mentee. The goal of this manual is to highlight the value of mentoring and to help faculty, and administrators be better mentees, and become better mentors.*

Change is the only constant; it is the way life progresses in the world, be it simply the propagation of species, adaptability to survival struggle, or the evolution of cultures and societies. This ever-changing nature of societies demands educators to constantly upgrade their knowledge domain: to teach and mentor a world that is always on the go to the next new technological advancement. Mentoring is a vitally important mechanism to benefit and train the next generation of knowledge creators and disseminators. In order to equip themselves with a broad repertoire of skills and dispositions to progressively improve results for students, the mentors must collaborate widely amongst each other for professional progress.

Proficient mentoring benefits all stakeholders. As mentors are the backbone of all Higher Education Institutions (HEIs) it not only ensures better outputs and high employability for the students but also ensures high enrolment ratio.

One of the recommendations of National Education Policy (NEP)2020 is to develop a system of mentorship by experienced, distinguished and retired faculty.

- *12.3. Faculty will have the capacity and training to be able to approach students not just as teachers, but also as mentors and guides.*
- *15.1. Teacher education is vital in creating a pool of schoolteachers that will shape the next generation. Teacher preparation is an activity that requires multidisciplinary perspectives and knowledge, formation of dispositions and values, and development of practice under the best mentors. Teachers must be grounded in Indian values, languages, knowledge, ethos, and traditions including tribal traditions, while also being well-versed in the latest advances in education and pedagogy.*
- *15.11. A National Mission for Mentoring shall be established, with a large pool of outstanding senior/retired faculty – including those with the ability to teach in Indian languages – who would be willing to provide short and long-term mentoring/professional support to university/college teachers.*
- *23.3. Use and integration of technology to improve multiple aspects of education will be supported and adopted, provided these interventions are rigorously and transparently evaluated in relevant contexts before they are scaled up. 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, and so on, both for school and higher education.*

**1.1.** It is evident from the Policy Document that Higher education institutions (HEI) are to 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.

**1.2.** 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.

**1.3.** Open and Distance Learning to 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 that these are at par with the highest quality in-class programmes. A comprehensive set of recommendations have been made for promoting online education consequent to the 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.

**1.4.** 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.

**1.5.** 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.

**1.6.** Although, the Government of India (GoI) undertook numerous initiatives to ensure high standards of teaching and learning outcomes in the past 73 years of Independent India, a lot remains to be done. Not only the reports from industrial bodies or economic reports on jobs indicate that the potential employees qualifying from various Indian higher education institutions lack apt skill-sets for employability, but also the global ranking of Indian Higher Educational institutions is dismal. This clearly indicates that presently the biggest challenge faced by the Indian Higher Education System is “quality and excellence”. Improvement in Indian Higher Education System is therefore critical and vital. Although, many strategies are being adopted at the macro level (national and state level) and micro level (universities and institutions), regarding the above mentioned challenges, the role of teachers in providing quality education remains the focal point. NEP 2020 emphasises on motivated, energised and capable faculty, and recommends various strategies to achieve this outcome.

**1.7.** *With a view to enhance the effectiveness of teachers and empower them with relevant knowledge and skills sets for providing quality education, UGC under the aegis of Ministry of Education has planned to make a policy document on mentoring of teachers. This document shall serve as guidelines for different aspects of teaching job/role and suggests mentor-mentee way to work as a guide to enhance teaching skills and the overall quality of higher education in the country. New faculty to undergo institutional familiarization programmes. This programme must familiarise them with the culture and ethos of the institution, the programmes and courses, good teaching practices and pedagogical approaches, and other matters that will facilitate them into becoming an effective part of the team of the HEI. Each new faculty member may also be assigned a faculty mentor having a long tenure in the HEI and an exemplary track record.*

**1.8.** *HEIs will institutionalize processes for professional development and performance management of faculty and staff, including faculty for ODL.*

**1.9.** *A self- assessment tracking system that would encourage faculty to assess their own progress and learning must be put in place.*

## **2. WHAT TEACHERS REQUIRE TO IMPROVE QUALITY OF SERVICE:**

- General understanding of the present scenario and challenges of higher education, the spectrum of duties and expectations.
- Basic understanding of the teaching-learning process, the psychology of learning and effective pedagogical techniques.
- Guided exposure to expert teaching practices, lab development, etc.
- Training in preparing a systematic lesson plan and effective classroom interaction to develop competence in communication skills in various modes relevant to all professions.
- Inculcation of a holistic perception, professional values and ethical attitudes.
- Exposure to relevant ICT tools and aids for effective teaching-learning, and resources for lifelong self-learning.
- Training for appropriate use of various modes of evaluation, online and offline.
- Training for creative problem solving and research methodology; organisation and guidance of R&D projects.
- Training in miscellaneous aspects other than teaching and research such as administrative procedures, financial procedures and legal implications, etc.
- Understanding personalized learning eco-system.
- Orientation to be more responsive to societal needs and community engagement.
- Making education more relevant to dynamic needs of the eco-system.

## **3. INDUCTION OF NEW ENTRANTS**

It is mandatory for every newly appointed teacher to attend induction programme within one year of his/her appointment prior to his or her regularization/confirmation. The main purpose of induction programme is to make a teacher aware about the administrative set-up, sensitize him/her to classroom realities and understand the bond between different stakeholders for realizing the professional aspirations and developing as agents of socio- economic change and national development. Initially the faculty member shall be paired with a Mentor under Mentor-Mentee System as detailed in subsequent sections.

### **3.1 Areas**

It becomes the bounded responsibility of the academic leaders at the different levels of the institutions to design a systematic process of socialization and induction of new entrant to academic world. This may broadly include the following:

- Familiarization with institutional culture, norms and patterns of behaviour
- Interaction with the faculty introducing their specialisations, strengths and contribution in the academics
- Orientation to teaching pedagogy and instructional material, educational gadgets and challenges of adolescent learning
- Introducing the avenues and process of professional development & growth such as SWOC analysis, faculty development programmes, mentoring, career advancement, academic leadership and academic integrity
- Awareness about the professional ethics / code of conduct
- Sensitisation to dealing with students, academic and non-academic staff

### 3.2 Key issues

This stage relates to preparation and introduction/welcome, and takes place prior to the commencement of teaching. It includes orientation, which is the introduction to the profession, the employer and the workplace.

Key issues to be worked through and information required by new teachers during this stage may include:

- availability and location of curriculum materials and teaching resources
- information about students prior to teaching
- timetable and grade allocation
- Academic Calendar, regulations and rules of Course/Programme and policies
- how to access facilities and equipment
- who's who and what's where?
- desk arrangements and availability of classroom resources
- expectations about teaching role and responsibilities

### 3.3 Laying the foundation

While the first few weeks of teaching are about supporting new teachers in 'finding their feet', the focus of this period is to lay the foundations enabling teachers to further develop and extend their practice.

Key issues to be worked through and information required by new teachers during this stage may include:

- managing student behaviour/ classroom management
- catering for students with a range of learning needs
- effective teaching and learning strategies
- organising student learning
- student assessment
- communicating/dealing with stakeholders
- teaching strategies for particular content areas
- inclusion of students with a disability
- record-keeping
- developing sequenced learning programs; curriculum planning
- Opportunities to undertake one/two collegial classroom activities; begin list of professional learning activities undertaken.

### 3.4 Need for induction

The beginning teacher is more self-directed in the development of skills but also needs more consistent and frequent feedback. Directing the beginning teacher to self-reflective practices will assist them in evaluating their own progress.

Reflective practice can consist of methods which promote a deeper awareness of the teaching process, such as:

- journals
- formal and informal conferences
- observations of each other
- Reflective questioning strategies.

Educators who use reflective practice:

- can make adjustments to the curriculum versus following a prescribed path
- identify new ways to structure activities and routines
- develop or incorporate new strategies for student achievement

- Recognise methods that are effective.

It is essential that in the beginning of the career, the teacher receives a high level of support. At this stage, the teacher may not be ready to be 'mentored' in terms of intensive professional dialogue. There is a need to help the newly appointed teachers with **orientation to the profession and the HEI system** and to help them plan their career.

### 3.5 Formal Induction Programme

As a mandatory requirement, a new entrant should undergo an orientation/induction programme of prescribed duration either MOOCs or online /offline /blended mode as approved by the concerned authority /body governing the higher education.

**The FIP /DAKSHTA Programme in HRDC or PMMMNMTT Centres or any approved induction programme may offer these modules as per the type of HEI such as RUs, TUs and ACs.** Keeping in view the largest HEI system in country, it is envisaged that the teachers may need to undergo following MOOCs based courses offered under the umbrella of GURU-DAKSHTA Faculty Induction Programme (FIP):

- Module 1: Higher Education and its Ecosystem (17 Hrs)
- Module 2: Curriculum designing, Outcome based learning and Choice based credit system (20 Hrs)
- Module 3: Teaching, Learning and Assessment (20 Hrs)
- Module 4: Technology for Teaching and assessment of I-generation (20 Hrs)
- Module 5: Personal-Emotional Development and Counselling (20 Hrs)
- Module 6: Research, Professional Development and Academic Leadership (20 Hrs)
- Module 7: Academic Integrity (10 Hrs)
- Module 8 : Constitutional Values, Human Rights & Fundamental Duties (13 Hrs)
- Module 9: Environmental Consciousness and Sustainable Development Goals (10 Hrs)
- Module 10 : Strategic Planning and Management (15 Hrs)

The teachers will have the choice to undergo MOOCs of similar duration out of the MOOCs offered by NITTTR. The duration of induction programme may range 160 to 175 hours.

## 4. MENTORSHIP

In order to acquaint and equip the new teachers with the competencies for executing effective academic processes, mentoring by senior and experienced shall form the integral element of professional development.

Mentoring is a key strategy of induction. Mentoring is essentially a formalized relationship that supports and encourages professional learning. In mentoring, a sound and trusting relationship will rely upon the degree of understanding and responsibility shared by the mentoring partners. The establishment of the relationship is crucial and will determine the level and quality of dialogue. Through SWOC analysis and sharing of profiles mentor and mentee derive the opportunities and time to get to know each other for building the foundations for the development of the professional relationship. This will lead to connect the faculty more to the needs of society, industry, R & D and the country as a whole. This phase shall help teachers enhance their practical and field related skills for making teaching learning process applied and occupation oriented.

Mentoring is contributing time, attention, insights, and advice to help a mentee within an environment where they have apt resources and support to develop social, technical and intellectual capital. Mentoring is not an enterprise for those who prefer to work alone, either as individuals or as organizations. It requires partnership and collaboration. This is the *sine qua non* of an effective program. From the placement of first-time teachers, to finding time for mentoring, to strategies to fund programs, to issues of confidentiality, to the policies that

consolidate various aspects of programs, mentoring works well when everyone with a stake in its outcomes is fully involved in its planning and implementation.

Mere providing of resources to a mentee to accomplish a technical / intellectual capital is not mentoring. A mentorship is a relationship between two people where the individual with more experience, knowledge, and connections is able to pass along what he has learned to a junior colleague within a certain field. Mentoring involves personal interactions with the mentee.

#### **4.1 Mentoring Initiatives**

In order to frame this policy, the broad initiatives, which were undertaken, comprise:

- Enriching the induction process by providing expert advice and guidance by experienced mentors.
- Identifying mentoring needs at different levels and for different categories of teachers keeping in mind the present status of teachers training expectations from a professional teacher, and the needs of society in particular and the country in general.
- Prescribing the framework structure and content of mentoring programme at different levels of faculty.
- Identifying a suitable mechanism to implement mentoring programme for the teachers in HEIs across the country.
- Identifying resource persons for preparing relevant resource material (both print and digital).
- Identifying relevant strategies including digital educational offerings through technology-based means, i.e., MOOCs and/or Open Education Resources (OERs).
- Planning for carrying out action research on the effectiveness of the programme.
- Planning for continuous updating of the implementation strategies of the programme and the quality and content of resource material.

#### **4.2 Objectives of mentorship:**

- Help faculty members of HEIs identify and achieve career development and personal growth goals compatible to the objectives of HEIs
- Support building academic leaders who have knowledge, skills and abilities
- Foster higher levels of engagement and career vision
- Equip faculty members with the tools necessary to enhance their capability within their current roles
- Create opportunities to meet and partner with stakeholders, or cultural boundaries
- Create a culture that sees mentorship as an effective way of developing proficient individuals

### **5. SUPPORTING THE MENTORING RELATIONSHIP**

Mentoring has long been recognized as a powerful tool in career development. Early career psychologists are advised to find mentors, either informally on their own, or to participate in formal mentoring programs. Regardless of how a mentor and mentee are matched, etiquette and ethics demand that the relationship be conducted in a professional manner with consideration and respect for both individuals. Mentoring is a dynamic process and a developmental network of mentoring can help mentees identify several mentors who can address a variety of career-related needs. The leadership within an institution must first recognize and identify the need for mentoring, and then plan, develop, support, and promote a program that directly addresses specific workforce gaps—both current and future. Regardless, whether the leadership at an institution recognizes and supports mentoring, a staff member's career can benefit from a mentoring relationship, even if not officially sanctioned. Support is to be ensured broadly in:

- Time allocation – as reduced allotment, time for mentoring activities and time for professional learning activities.



- A well-considered teaching load and class allocation, which takes into account the beginning teacher's experiences and needs.
- The position of an induction and mentor co-ordinator as a leadership position in the HEI.
- Regular and timetabled mentoring meetings on a weekly or fortnightly basis.
- The mentor and novice teacher working in close physical proximity to one another.
- The mentor and beginning teacher teaching the same year or subject level.
- Active support from the HEI leadership for both the beginning teacher and the mentor.

## **5.1 Mentee:**

“A mentee is someone who has identified a specific personal or professional goal and who believes that the guidance and help of a mentor – and being held accountable to the mentor – can help them achieve their goal” or “Anyone who wants to learn and seeks valuable advice from someone who knows in order to grow professionally and/or personally.” As such, the Mentee need to actively participate, retain critical faculties, seek new capacities, seek overall development other than domain area, Remain open to multiple influences and own responsibility for success.

For empowering the teachers in the broad spectrum of areas and developing their holistic personality, two phased mentoring strategies especially for the teachers who are the new entrants in the higher education system has been planned.

## **5.2 Mentor**

A mentor is a teacher or an advisor one who leads through guidance. Faculty Mentoring is a process by which experienced senior faculty with highly acquired achievements - counsel, guide, instruct and facilitate the intellectual and/or career development of generally new, less experienced faculty. A mentor is “Anyone who offers knowledge, insight, perspective, or wisdom that helps other people professionally and also goes beyond duty or obligation.”

### **5.2.1 Qualities of a Mentor:**

Willingness to serve as a source of information both in the mentees field and within the institution, as an advisor who provides multiple perspectives with guidance on better options, as an advocate, confidant and friend, as a sounding board, as a person who opens doors and facilitates connections, and as a sponsor and promoter to others in the community. To be specific:

- Mentor provides constructive feedback by reviewing their mentee's draft proposals and papers. Mentor can also provide constructive feedback on instructional activities both inside and outside of the classroom. Perspectives and sponsorship in impactful/beneficial service is also encouraged.
- While it is not required, it is valuable and encouraged to involve their mentee as a co-author in proposals or facilitate contact with others as appropriate. Mentor may also involve the mentee as a collaborator leading to co-authorship on journal papers.
- Demonstrated success in professional activities essential for tenure and promotion of faculty including having secured and sustained substantial external research funding, published extensively in peer reviewed/archival journals, valuing teaching as well as earning recognition as a respected teacher, and serving in leadership roles in their local/national professional community.
- Mature professional and research career standing and readiness to nurture younger colleagues.
- Ability and desire to work with others with unselfish, caring and genuine interest in the welfare of the faculty, department, and larger research community at Universities.

- Mentor values credibility, integrity, confidence, cooperation, chores and citizenship, communication skills, professional activity, credit, and intolerance of harassment.

### 5.2.2 Expectations from a Mentor:

- Awareness of Mentee teacher's context of learning
- Understanding of teaching practicum requirements and teacher- learning aspects
- Contextual knowledge of mentee teacher's online learning of modules
- Pedagogy of Adult learning and of mentoring & knowledge of the teaching profession
- Understanding of the higher education system and teacher's effectiveness performance criteria
- Collection and interpretation of evidence of learning
- Analysis and reflection on evidence of learning
- Use of effective observation skills and strategies
- Demonstration of professional leadership and understanding of the potentiality of effective teaching mentors need to be empowered
- Counselling and guidance skills suiting to the needs and requirements of the mentee.
- Role model in various dimensions of academics.

### 5.2.3 Qualifications and Experience of a Mentor

The essential educational qualifications for the mentor will be a senior faculty member with **20 years UG teaching / research or 15 years PG teaching / research experience**. He/she should have attended/conducted at least five in-service faculty development programmes preferably in the pedagogy area and/or domain area.

He/she must have contributed to at least one of the areas like (i) Research and Development, (ii) Curriculum Development, (iii) Instructional Material Development, (iv) Counselling, (v) member of national or international policy level committees, (vi) engaged in motivational talk. Mentor should be physically and mentally fit to the satisfaction of mentee.

## 6. IMPLEMENTATION STRATEGIES

For empowering the teachers in the broad spectrum of areas and developing their holistic personality, two phased mentoring strategies especially for the teachers who are the new entrants in the higher education system has been planned.

### 6.1 First stage

The mentor assists the beginning teacher in accomplishing specific tasks related to their new position and provides modelling of skills, sharing of strategies and observational feedback.

<p><b>Module One: Getting Started</b></p> <ul style="list-style-type: none"> <li>➤ Icebreaker</li> <li>➤ Organizational Items</li> <li>➤ Workshop Objectives</li> </ul>	<p><b>Module Seven: The Importance of Trust</b></p> <ul style="list-style-type: none"> <li>➤ What is Trust?</li> <li>➤ Trust and Coaching</li> <li>➤ Building Trust</li> </ul>
<p><b>Module Two: Defining Coaching and Mentoring</b></p> <ul style="list-style-type: none"> <li>➤ What is coaching?</li> <li>➤ What is Mentoring?</li> </ul>	<p><b>Module Eight: Providing Feedback</b></p> <ul style="list-style-type: none"> <li>➤ The Feedback Sandwich</li> <li>➤ Providing Constructive Criticism</li> <li>➤ Encouraging Growth and Development</li> </ul>
<p><b>Module Three: Setting Goals</b></p> <ul style="list-style-type: none"> <li>➤ Goals</li> <li>➤ Identifying Appropriate Goal Areas</li> </ul>	<p><b>Module Nine: Overcoming Roadblocks</b></p> <ul style="list-style-type: none"> <li>➤ Common Obstacles</li> </ul>

<ul style="list-style-type: none"> <li>➤ Setting SMART Goals</li> </ul> <p><b>Module Four: Understanding the Reality</b></p> <ul style="list-style-type: none"> <li>➤ Getting a Picture of Where You Are</li> <li>➤ Identifying Obstacles</li> <li>➤ Exploring the Past</li> </ul> <p><b>Module Five: Developing Options</b></p> <ul style="list-style-type: none"> <li>➤ Identifying Paths</li> <li>➤ Choosing Your Final Approach</li> <li>➤ Structuring a Plan</li> </ul> <p><b>Module Six: Wrapping it All Up</b></p> <ul style="list-style-type: none"> <li>➤ Creating the Final Plan</li> <li>➤ Identifying the First Step</li> <li>➤ Getting Motivated</li> </ul>	<ul style="list-style-type: none"> <li>➤ Re-Evaluating Goals</li> <li>➤ Focusing on Progress</li> </ul> <p><b>Module Ten: Reaching the End</b></p> <ul style="list-style-type: none"> <li>➤ How to Know When You've Achieved Success</li> <li>➤ Transitioning the Coachee</li> <li>➤ Wrapping it All Up</li> </ul> <p><b>Module Eleven: How Mentoring Differs from Coaching</b></p> <ul style="list-style-type: none"> <li>➤ The Basic Differences</li> <li>➤ Blending the Two Models</li> <li>➤ Adapting the GROW Model for Mentoring</li> <li>• Focusing on the Relationship</li> </ul> <p><b>Module Twelve: Wrapping Up</b></p> <ul style="list-style-type: none"> <li>➤ Words from the Wise</li> <li>➤ Lessons Learned</li> <li>➤ Completion of Action Plans and Evaluations</li> </ul>
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To assist states in developing strong mentoring programs, based on the above stated initiatives, nine areas of importance for success have been identified:

**A. Teachers Served**

Require all new teachers to receive induction support for the first two years in the profession. Para 15.9 and 15.10: NEP 2020.

**B. Mentor Quality**

Develop a rigorous mentor selection process.

Require initial and ongoing professional development for mentors.

Develop methods of assigning mentors to new teachers.

**C. Time**

**Provide release time for mentors.** *The provision for release time must be recognised for providing administrative support so that the Mentor and Mentee meet each other during their respective office hours!*

Provide dedicated mentor-new teacher contact time.

**D. Program Quality**

Require Mentors to regularly observe new teachers and to provide instructional feedback.

Require new teachers to observe other experienced teachers and to join a peer network.

**E. Program Standards**

Adopt formal program standards that determine the design and operation of all such induction programs.

**F. Incentives**

Develop competitive and innovative incentive methods to support new teacher mentoring programs.

**G. Teacher Certification**

New teachers to be required to complete an induction program before moving to the next level.

**H. Program Accountability**

Periodic assessment of induction programs through program evaluation, program surveys and peer reviews.

**I. Teaching Conditions**

Adopt formal standards for teaching and learning conditions as envisaged in Para 13.2-13.7: NEP 2020.

Regularly assess these conditions through National Accreditation Council (NAC) Para 18.4: NEP 2020. Include these formal standards for such conditions into Institutional Development Plan (IDP)-Para 13.6: NEP 2020.

Mentor's selection will depend on the matching of mentees needs and mentor's profile (not age) but other essential qualifications should be fulfilled.

## 6.2. Orientation of Mentors

In addition to the above, in order to bring uniformity in the approach of mentoring, an orientation of mentor teachers on aspects of “Discipline Specific Field/Industrial Training of Mentee Teachers” and on implementation of this phase of programme is highly desirable. For this purpose, a one-week Orientation-cum-Training Programme for mentors is proposed. NITTTR Chandigarh has designed an Orientation-cum-Training Programme for Mentors (OTPM), to be offered by faculties in all the four NITTTR regions. Besides, online or offline Mentors’ Meet may be conducted with specific objectives of making mentorship more effective and productive by HRDCs.

## 6.3 Pairing of Mentor and Mentee

The Ministry of Education (**MoE**) conveyed vide a communication, dated 23<sup>rd</sup> September, 2020 that in order to have a comprehensive database of distinguished teachers, all the **Higher Education** Institutions (HEIs) and their faculties need to register on VIDWAN portal and Indian Research Information Network System (IRINS), both maintained by Information and Library Network Centre (INFLIBNET), an **Inter-University** Centre of UCC. Only those institutions which are registered on IRINS and only such faculty who are registered on VIDWAN portal will be considered for funding by UGC / **MoE**. **In order to make** mentoring system efficient and transparent, a digital platform like the SWAYAM has to be in place. This platform shall help in keeping the data base of mentees and their progress, data base of mentors, uploading learning resource material, assignments, assessments, results of end term examination of the Phase I and Phase II training and certification of the qualified mentees. The services of INFLIBNET Centre, an autonomous Inter-University Centre of the UGC, Gandhinagar, **Gujarat** can also be utilized in this regard.

As such the Mentor Roles are: Listen, share experiences, foster skill building, refer and network, and be one of many influences. The portal need to be populated with Potential Mentors willing to offer their services towards Nation Building by nurturing the faculty members of HEIs, preferably having the characteristics:

- Spot the Potential & Believe in Others,
- A Networked & Resourceful Guide,
- Displays Patience and Tolerance,
- Gives Encouragement,
- Sees the Big Picture,
- Goal-oriented,
- Seeks Challenges,
- Takes Initiative
- Shows Eagerness to Learn,
- Accepts Personal Responsibility.

The Mentees will pick up mentor(s) suiting to their needs and aspirations from the VIDWAN portal and exchange their profiles in following formats:

### 6.3.1 Mentor’s Profile to be shared with Mentee (Rubric for Mentor)

Parameters	Highly Accomplished	Middle level	Threshold level	Below threshold
<b>I. Teaching and Research Experience</b>	25 years and above UG teaching or 20 years and above PG teaching /Research	20 to 25 years UG teaching or 15-20 years PG teaching /Research	20 years UG teaching or 15 years PG teaching /Research	

<p><b>II. Research and Development</b></p> <ol style="list-style-type: none"> <li>1. Completed at least 2 major research projects sponsored by national/international level institutions</li> <li>2. Published 10 research papers in UGC approved journals / 2 Books published by national /international publishers</li> <li>3. Patent/technology transfer/Product/Process</li> <li>4. Research guidance at PhD level</li> <li>5. Attended /organised 5 in-service faculty development programmes</li> </ol>	Any 4 out of 5	Any 3 out of 5	Any 2 out of 5	
<p><b>III. Academic Leadership</b></p> <ol style="list-style-type: none"> <li>1. Engaged in instructional material development at institutional level</li> <li>2. Participated in curriculum development / Member of Board of Studies/ Faculty/ Academic council</li> <li>3. Held leadership positions at college / University /inter-institutional level</li> <li>4. Member/ leader of academic / administrative committees at national level institutions</li> <li>5. International engagement as member/leader in academic fora</li> </ol>	All five	Any 4 out of 5	Any 3 out of five	
<p><b>IV. Community Engagement</b></p> <ol style="list-style-type: none"> <li>1. Involved in community/social welfare activities</li> <li>2. Contributed in seeking/ developing solutions to societal problems</li> <li>3. Contributed through research/development/new knowledge to enhance human welfare</li> <li>4. Inspired people through motivational talks/awareness programmes</li> </ol>	All five	Any 4 out of 5	Any 3 out of 5	

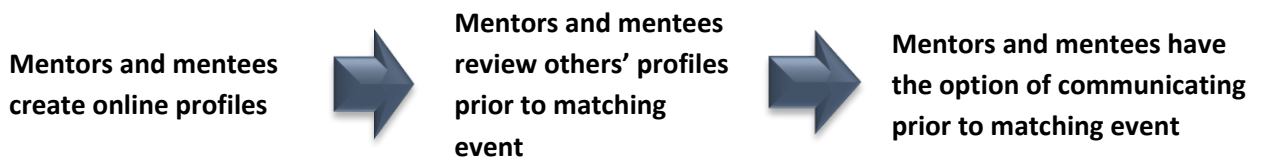
5. Provides Guidance and counselling to needy /aspirants in the society				
<b>V. Attributes for mentoring</b>	All five	Any 4 out of 5	Any 3 out of 5	
1. Exhibits humility				
2. Possesses skill of communication (listening, patience and empathy)				
3. Interpersonal effectiveness / relations				
4. Good humour				
5. Supporting /openness attitude				

### 6.3.2 Mentee's Expectations/ Aspirations to be shared with the Mentor (Tick at appropriate place)

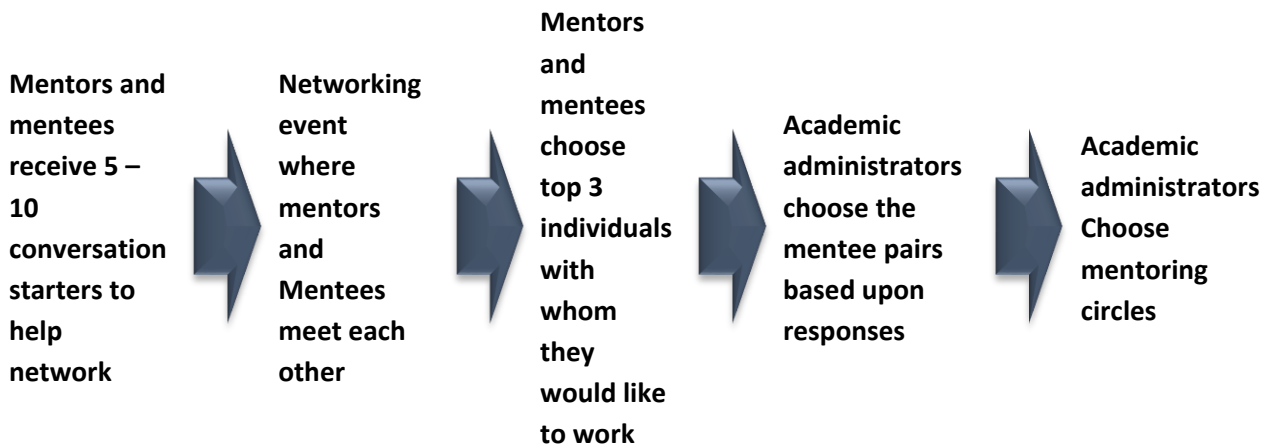
Areas for mentoring support	High Need	Moderate Need	Low Need	Not needed
<b>I. Support /Assistance</b>				
1. Subject knowledge				
2. Instructional expertise				
3. Assessment / Evaluation related				
4. Extension / community engagement				
5. Research guidance (outcome in terms of papers, books, research projects, etc. )				
6. Any other				
<b>II. Professional Development</b>				
1. Understanding learning environment				
2. Sensitivity to students' aspirations				
3. Code of conduct /standards for teachers				
4. Academic Integrity				
5. Win-win approach to learning				
6. Role Model				
7. Any other				
<b>III. Personal Development</b>				
1. Confidential Building				
2. Positive attitude				
3. Reflective and observational skills				
4. Proactive skill				
5. Emotions' management /Stress management				
6. Any other				
<b>IV. Academic leadership</b>				
1. Leading the groups				
2. Problem solving				
3. Challenges of working with people				
4. Goal setting				
5. Governance of education				
6. Any other				

### 6.3.3 Pairing of mentee and mentor

#### Gathering Mentor & Mentee Preferences



#### Finding the Right Partner – The Pairing Process



### 6.3.4 Mentor/Mentee Orientation/Ice-Breaking(if required)

#### Mentor/Mentee Orientation/Ice-Breaking (if required)



#### Learning Objectives

For Mentors	For Mentees	For Mentor-Mentee Pairs
<ul style="list-style-type: none"> <li>➤ Understanding the specific process steps in the mentoring initiative</li> <li>➤ Negotiating all aspects of the partnership</li> <li>➤ Cultivating trust and moving through the relationship pyramid</li> <li>➤ Identifying mentee development goals and activities</li> <li>➤ Dealing with a challenging mentee</li> <li>➤ Keeping your partnership stimulating for you and your mentee</li> <li>➤ Effectively leveraging mentoring circles</li> </ul>	<ul style="list-style-type: none"> <li>➤ Understanding the specific process steps in the mentoring initiative</li> <li>➤ Learning about the requirements and how to request mentorship around each</li> <li>➤ Creating a personal vision</li> <li>➤ Setting important goals and tracking them throughout the mentoring lifecycle</li> <li>➤ Managing difficult mentors and providing feedback</li> <li>➤ Getting what you need out of the mentoring relationship</li> </ul>	<ul style="list-style-type: none"> <li>➤ Understanding the relationship pyramid and what each step means for them</li> <li>➤ Effectively leveraging mentoring circles</li> <li>➤ Building a foundation of trust</li> <li>➤ Establishing a relationship contract</li> <li>➤ Establishing key goals and desired outcomes for mentee-mentor pair and mentor circles               <ul style="list-style-type: none"> <li>○ ground rules</li> <li>○ expectations</li> <li>○ frequency of meeting</li> </ul> </li> </ul>

<ul style="list-style-type: none"> <li>➤ Understanding the role of a development plan in a mentoring relationship</li> <li>➤ Receiving something meaningful from this experience</li> <li>➤ Successfully exiting a formal mentoring relationship</li> </ul>	<ul style="list-style-type: none"> <li>➤ Understanding the role of a development plan in a mentoring relationship</li> <li>➤ Knowing how to involve and leverage your Academic Administrator of Concerned HEI to attain your desired goals</li> <li>➤ Effectively leveraging mentoring circles</li> <li>➤ Exiting a formal process and maintaining a long standing relationship</li> </ul>	<ul style="list-style-type: none"> <li>○ what success looks like</li> <li>○ Agreements</li> </ul>
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***The Mentor, Mentee, and Academic Administrator of Concerned HEI Relationship Mentoring is a shared accountability between the mentor, mentee and mentee’s Academic Administrator of Concerned HEI. Each has a separate role but a united focus: assist the mentee with improving their contributions to Qualcomm’s success. Each mentor/mentee relationship is unique and requires the mentor to be flexible in their mentoring approach.***

## Selecting, Inspiring, and Supporting Mentors

### Attitude and Character

***Willing to be a role model for other teachers Exhibits strong commitment to the teaching profession Believes mentoring improves instructional practice Willing to advocate on behalf of colleagues Willing to receive training to improve mentoring skills Demonstrates a commitment to lifelong learning Is reflective and able to learn from mistakes Is eager to share information and ideas with colleagues Is resilient, flexible, persistent, and open-minded Exhibits good humour and resourcefulness Enjoys new challenges and solving problems***

### Professional Competence and Experience

***Is regarded by colleagues as an outstanding teacher; has excellent knowledge of pedagogy and subject matter; has confidence in his/her own instructional skills; demonstrates excellent classroom-management skills; feels comfortable being observed by other teachers; maintains a network of professional contacts; understands the policies and procedures of the school, district, and teacher association Is a meticulous observer of classroom practice; collaborates well with other teachers and administrators; is willing to learn new teaching strategies from protégés.***

### Communication Skills

***Is able to articulate effective instructional strategies Listens attentively Asks questions that prompt reflection and understanding Offers critiques in positive and productive ways Uses email effectively Is efficient with the use of time Conveys enthusiasm and passion for teaching Is discreet and maintains confidentiality***

### Interpersonal Skills

***Is able to maintain a trusting professional relationship; knows how to express care for a protégé’s emotional and professional needs; is attentive to sensitive political issues; works well with individuals from different cultures Is approachable; easily establishes rapport with others; is patient.***

## 6.4 Bridging



Good mentoring acknowledges that mentees are unique individuals coming to a new environment with varying backgrounds and skill levels, and, accordingly, seeks to assess skill levels and provide training and orientation where needed in order to equalize a diverse peer group and give everyone a good start.

<b>Mentor</b> Focuses on transferring knowledge and assisting the mentee with developing new capabilities	<b>Mentee</b> Focuses on achieving sustainable results the right way	<b>Academic Administrator</b> Focuses on getting things done through people
<p>Asks questions to assist and challenge mentee with catering to the requirements:</p> <p>“Flair”</p> <ul style="list-style-type: none"> <li>— Assessing personal presentation</li> <li>— Communicating effectively</li> <li>— Influencing key partners</li> </ul> <p>“Career”</p> <ul style="list-style-type: none"> <li>— Planning career growth</li> <li>— Navigating goals and strategies</li> <li>— Honing organizational savvy</li> </ul> <p>“Skills”</p> <ul style="list-style-type: none"> <li>— Developing functional / technical skill</li> <li>— Innovating and achieving excellence</li> </ul> <p>“Domain of involvement”</p> <ul style="list-style-type: none"> <li>— Getting involved</li> <li>— Applying learnings</li> <li>— Sustaining commitment</li> </ul> <p>“Life”</p> <ul style="list-style-type: none"> <li>— Maintaining work/life balance</li> <li>— Managing life changes</li> <li>— Dealing with competing demands</li> </ul> <p>“Worldly prudence”</p> <ul style="list-style-type: none"> <li>— Developing awareness</li> <li>— Getting involved</li> <li>— Sustaining commitment</li> </ul> <ul style="list-style-type: none"> <li>➤ Assists mentee with reflecting on past successes and failures to identify strengths to leverage and weaknesses to mitigate</li> <li>➤ Attends learning sessions and mentor circles with mentee</li> </ul>	<ul style="list-style-type: none"> <li>➤ Clarifies performance expectations and priorities</li> <li>➤ Seeks on-going feedforward to improve personal contributions</li> <li>➤ If necessary, adjusts goals and priorities due to dynamic business environment</li> <li>➤ Focuses performance on the “what” and “how”</li> </ul>	<ul style="list-style-type: none"> <li>➤ Establishes performance expectations</li> <li>➤ Conducts 1:1 updates with a focus on progress against job performance goals</li> <li>➤ Provides business updates, shares context for business decisions and the impact on the department and employee</li> <li>➤ Assesses job performance and links mentee contributions to reward decisions</li> </ul>

## 6.5 Second Stage

### Mentoring New Teachers:

"Teaching isn't a job; it's a lifestyle." The teaching profession has a unique culture and set of demands. Being a new teacher means orienting oneself to the culture of the profession and the day-to-day realities. New teachers begin from scratch and often find themselves teaching unfamiliar content to unfamiliar students in an unfamiliar grade level using unfamiliar course material. Supporting new teachers needs to be more than just sharing information, providing instructional coaching and designing professional development. Support must also be extended in the forms of empathy, perspective and advice. When mentors work on

professional growth goals without probing a teacher's mind-set or emotional health, skill development can become distracting, stressful and even counterproductive. *The amount and types of support that new teachers receive from mentoring programs can be planned along a Continuum of Support:*

**Low-Level Needs:** Mentors act as information providers for new teachers. It's natural to do so because, at this level, support can be provided immediately and definitively.

**Mid-Level Needs:** Mentors act as thought-partners for new teachers. Teachers' days are filled with constant decision-making. New teachers who are not accustomed to this often experience decision-making fatigue. Mentors have the greatest impact on teachers when they act as thought-partners who provide balanced empathy and expertise.

**High-Level Needs:** Mentors act as skill developers for new teachers. Examples of teachers' needs include: (i) Developing critical thinking questions to gauge student learning (ii) Differentiating assignments for a variety of student needs and abilities etc.

**Compliance-Driven:** As part of a required induction program, new teachers consult with mentors to complete projects, such as portfolios and professional growth plans **or** GURUDAKSHATA scheme of UGC.

**Problem-Driven:** Mentoring structures and activities are linked to specific challenges that early-career educators encounter in the classroom.

**People-Driven:** Mentors support teachers' entry into professional communities. The program emphasizes both teacher and mentor growth.

**Virtual Mentoring:**

If the mentor can provide sufficient support and a strong mentoring relationship to the mentee, and remain in contact through electronic means to provide mentoring, then the void created by physical absence of the mentor can be substantially reduced. It must be noted that providing sufficient support for the mentees to accomplish the planned activity is a minimum requirement, but mentoring means much more than this. Mentoring is the time and attention that the mentor provides the mentee with to assist with their intellectual and professional development. Significant face-to-face time during the initial period is critical. After the first 2-3 weeks, the physical absence can be partially replaced with electronic presence.

The comments given below assume that a mentoring relationship has been established. The following are some ideas for communicating via electronic means:

- Request a weekly document providing updates on the progress of the mentee. Make this consistent with what you ask for when you are not available face-to-face.
- Request that the mentee send any exciting results or insights as soon as possible. Do not let them wait to engage you in results that they consider important. Establish an electronic communication means – e-mail, text, or Facebook. Communicate ahead of time, and increase the frequency with which you will check for their communication.
- Make it clear if and when the mentee can call you on your cell phone. If something will take extensive discussion, state that and defer the discussion until you have robust means of face-to-face communication.

Options	
<b>One-on-One</b>	Mentoring Circles
<b>A mentee pairs up with a mentor</b> Pairs must be able to meet two times per <b>month</b> ; <b>mentor</b> -mentee relationship stays committed for the duration of the <b>pilot</b> ; <b>confidentiality*</b> is maintained by both the mentor and the mentee	<b>Three mentors and eight mentees per group</b> Meet monthly for 60 minutes; help individuals be accountable to one another, support important development goals, and build the competence to reach those goals; confidentiality is maintained by all in the mentoring circles

**6.6 Building a Productive Relationship**

A robust 'Feedback Framework shall help deliver effective feedback messages, which is a skill that takes time and practice to perfect. Mentoring is not a one-way street; delivering feedback goes both ways.

Testing for developmental moments includes:

- Ask your mentor/mentee what they think or thought about a situation, conversation, etc.
- Ask directly: “Do you mind if I share my feedback?”
- Signs that it is probably not a developmental moment
- Test for defensive body language (e.g., arms folded, no eye contact)
- Notice expressions of anger, disgust or exasperation
- Observe for preoccupation with some other activity
- Look for indications of impatience or a need to move on to some activity

## 6.7 Evaluation of Mentee

### **EXPECTATIONS** (*Expected results and required behaviours*)

The evaluation of the mentees undergoing the proposed training programme (Phase I: MOOCs and Phase II: Discipline specific field training for broad based contributions to the eco-system in terms of R & D, problem solving, transfer of technology, sustainable development etc.) shall be carried out on the basis of assignments, quizzes and end term examination. In addition, mentors shall evaluate the job performance through the following rubrics designed for the purpose:

- Explain what performance should “look like”
- Identify the expected results and required behaviours of an individual’s performance
- Can be explicit or implicit:
  - Explicit expectations are stated goals, competencies, performance standards, etc.
  - Implicit expectations are the “assumed” expectations (e.g., you will show up to work)

### **OBSERVATIONS** (*Neutral facts or occurrences*)

- Based on what you have seen someone do or have heard other people describe that they have done
- Should be similar for everyone viewing the situation—the plain facts, unfiltered by personal experience or assessment
- Should be specific and fact-based, not generalities

### **ASSESSMENTS** (*Personal interpretations or evaluations of a set of observations*)

- Personal judgments about an individual’s observed performance
- Not the “truth” (observable facts), but are always shaped by personal background and expectations — personal perspective
- Focus on the individual’s performance (the “what” and the “how”) -not on who they are or their worth as an individual

### **CONSEQUENCES** (*Known or possible effects of continued performance*)

- Known or possible effects of continuing to perform with no change in behaviour or outcomes
- Can be positive or negative and should focus on the impact on the profession and on others

### **MENTOR ASSESSMENT:**

This assessment can be used to analyse prospective mentors (Rubrics based on following aspects is available in Annexure) in the following ways:

#### **1. Interpersonal Skill:**

Does the individual relate and work well with others?

Can his or her attitude be characterized as “cooperative” and “facilitative” rather than “antagonistic” or “argumentative”?

Does his or her history of working with peers or on teams indicate empathy to the needs of others?

#### **2. Technical Competence:**

Is the individual a high performer?

Does he or she demonstrate excellence or mastery in the skill or knowledge areas targeted for development?

Does he or she demonstrate an approach to work and grasp of the essentials that others would hold up as exemplary?

### **3. Perceived Status and Prestige/Image:**

Is she or he well respected by co-workers and management?

Is this person someone others naturally gravitate to for answers when work-related problems or complexities arise?

Is this someone other leaders look to for input when making decisions affecting the group?

### **4. Willingness to be Responsible for Others' Growth:**

Is this person committed to the growth and development of others?

Does this person demonstrate a willingness to support others in their work, offer help and guidance, and share skills and knowledge?

### **5. Personality:**

Can this person be characterized as a calming influence when situations grow heated?

Does he or she demonstrate patience in the face of obstinate problems?

Is this person secure in his or her work role?

### **6. Professional Knowledge:**

How extensive, current and well-grounded is this person's understanding of HEIs, its functions and operations?

How well have they synthesized the professional context in which work takes place?

How well do they know the stakeholders' base?

How well do they understand the challenges of Higher Education?

### **7. Professional Attributes:**

How well does this person exhibit the professional attributes associated with the job (e.g., good work habits, good communication and reporting, focus on challenges/problems rather than people, constructive attitude, persistence in the face of adversity, etc)?

## **6.8 Incentives**

The demands of mentoring and the desire to attract the services of the very best candidates call attention/highlights to the importance of incentives. A reduced or modified course load for both mentors and mentees ranks at or near the top of anyone's list of needs/essentials for a successful mentoring program. Like other professionals, mentors and mentees prefer to work under conditions that lead to success. Mentoring as a job/assignment achieves less when relegated to after hours and weekends assignment. Having an important role in the governance of a mentoring program may be equally attractive for would-be mentors seeking to exercise/explore their leadership talents while remaining very much within the profession. Most teachers have few such opportunities during their careers.

Mentor needs to be a person passionate about academics, willing to contribute to teaching learning system beyond the concern for remuneration. However, the teachers involved in mentoring may be given incentives to motivate them to perform their roles as a mentor in an effective manner. Such as, a mentor teacher may be awarded similar credit points as those given to teachers under recruitment and career advancement scheme of UGC:

- i. Guiding Post Graduate/Ph.D. students for the dissertation
- ii. Guiding a sponsored/R&D project,
- iii. Publishing paper(s) in SCI / equivalent standard journals.

## 6.9 Period/Duration of Mentorship

As every mentee has to undergo four/eight MOOCs of 8 weeks' duration each (total period coming out to be 64 weeks) and a two-week discipline specific field training, hence the role of a mentor is crucial for a period of one year. This shall include guidance during running of MOOCs and field training and evaluation of mentee's performance through rubrics, providing feedback for taking corrective measures for enhancing the output.

## 6.10 Motivating the Mentee for Continuing professional learning

This stage relates to the first year, emphasising the need to respond to individual professional learning needs. Key issues to be worked through and information required by new teachers during this stage may include:

- managing student behaviour
- student assessment and record-keeping
- catering for students with a range of learning needs and inclusion of students with a disability
- effective teaching and learning strategies
- report writing
- organising student learning including student motivation
- developing sequenced learning programs
- teaching strategies for particular content areas
- Continue to list and comment on professional activities undertaken; develop the Analysis of Teaching and Learning; and present Evidence of Professional Practice to panel of peers.

For making this training relevant, it is important that the decisions regarding the organizations be based on the collaborative interaction of the concerned teacher, his/her superiors, and the mentor. This step shall help in identifying the education and training needs of the teacher, his profession, and the requirements of the institution in general. An effective mix of these needs shall help the mentor in identifying the organizations where the training needs of the mentee teacher would be fulfilled. For the teachers of UG/PG programmes, the field/organizations should be related to the domain area of the teachers where the State of the Art equipment, processes and practices are being implemented. The organizations should have the resources to assign simple tasks, problems, micro-projects to the mentee teachers for the fulfilment of pre-determined learning outcomes of this type of training.

## 6.11 Calendar of events for mentor-mentee system

**After the Assessment Process is over and Results are under preparation the Leadership of HEI must**

- Contact potential Mentors to serve as mentors for new teachers. Encourage the mentors to contact the new teachers prior to the start of teaching.
- Encourage new teachers to visit the Institution, set up classrooms, and form a management plan for their students.

### August

- Provide a welcome and orientation day for new teachers.
- Set expectations for mentor/protégé relationship.
- Celebrate and recognize the importance of the mentor/protégé relationship.
- Help new teachers identify priorities for professional development.
- Touch base with new teachers during the first week of their presence to see how things are going.
- Find something positive on which to compliment the new teacher.

### September

- Explain standardized testing information with new teachers.
- Visit in the new teacher's classroom and conduct an informal observation for the purpose of giving feedback and to identify any problems early in the year.
- Provide release time for the new teacher and the mentor to observe in each other's classroom.

- Discuss assessment issues relating to formative assessment in view of cognitive learning, progress reports, grading, etc.

#### **October**

- Find ways to incorporate new teachers into the Corporate Life of HEI. Utilize their strengths without adding extra responsibilities.
- Explain conferencing procedures and expectations to new teachers.
- Provide release time for mentor and protégé to meet.

#### **November**

- Schedule a meeting to touch base with the new teachers. Encourage new teachers to share a success story with you.
- Discuss the Curriculum & Planning Standard (CP) with new teachers.
- Review Generic Modules covered during the period.
- Help new teachers identify new priorities for professional development. Review procedures for registration for FIPs/faculty development programmes.

#### **December**

- Provide more release time for the mentor teacher and new teacher to meet and/or observe other classrooms.
- Meet with new teachers and discuss assessment issues relating to Midterm and End Semester(s). Suggest some professional articles to read on assessment.

#### **January**

- Revisit classroom management strategies. Some new teachers need some fresh ideas or need to refocus their management efforts.
- Provide release time for the mentor and protégé.

#### **February**

- Share some instructional strategies with new teachers.
- Provide release time for mentor and protégé to look at instructional planning and implementation.

#### **March**

- Explain standardized testing information with new teachers.
- Revisit conferencing tips.
- Encourage new teachers to read professional journals/articles.

#### **April**

- Help new teachers understand the importance and benefits of examining student work samples for “next-step” instructional planning.
- Provide new teachers with suggestions for closing out the academic calendar successfully.

#### **May**

- Set aside time to reflect with new teachers. It is important for the beginning teacher to self-assess their areas of strength and areas for growth.
- Help new teacher assess new priorities for professional development.
- CELEBRATE the accomplishments of first-year teachers.
- RECOGNIZE mentors.

## **7. THE DISCIPLINE SPECIFIC FIELD TRAINING & FACULTY DEVELOPMENT PROGRAMMES FOR MIDDLE / TOP LEVEL ACADEMIC ADMINISTRATORS: OPPORTUNITIES FOR LIFE LONG LEARNING**

Both the mentor and the beginning teacher need to be aware that the mentoring relationship usually has a finite period. **The beginning teacher is no longer reliant on the mentor** and can provide possible solutions to problems encountered. The mentor can provide a sounding board to discuss the beginning teacher’s concerns and offer emotional support. During this time, the mentor relationship will begin to redefine into a peer support and collegial relationship. For making teaching learning process application oriented, it is very important that teachers are well aware of the practices being followed in field, research organizations, research laboratories, advance technology centres, universities etc. The incorporation of the knowledge and

skills gained by the teacher shall help in making the teaching learning process highly connected with the real world. This shall help the students passing out from the higher education institutions highly relevant from the day one in the systems in which they are to work. Discipline specific field training of teachers shall result in the holistic development of the teachers and in-turn the students, facilitating their growth & development in career, profession, personal and social life.

While the really motivated and industrious teachers use their own resources to keep themselves abreast of new knowledge and to train themselves in the latest processes, methodologies and techniques of teaching, it is necessary to provide systematic and organized orientation programmes for the large number of teachers at the college and university level. Despite progress in narrowing the access discrepancies, large gaps remain between completion rates. Our educational system is massive, well entrenched, and slow to change. We have well over 1.5 million higher education faculty who were educated in Pre-Digital age and who view education through a Post-Colonial model. There is no magical answer on how to reach the large number of teachers who are somewhat resistant to change yet Peer pressure, one-on-one in service, better incentives, administrative pressure, etc. have to be put in place. Focused and systematic drive will be through a “catch-up” campaign mode where the aim is to cover all in-service teachers, irrespective of their subject and seniority shall be requested to register and complete these refresher courses and UGC has recognised them in their latest regulations under “Minimum Qualifications for Appointment Of Teachers And Other Academic Staff In Universities And Colleges And Measures For The Maintenance Of Standards In Higher Education 2018” or any other Regulations regulating the service Conditions of Teachers in HEIs.

The Ministry of Human Resource Development has launched Annual Refresher Programme in Teaching (ARPIT), a major and unique initiative of online professional development using the MOOCs platform SWAYAM. For implementing ARPIT, 75 discipline-specific National Resource Centres (NRCs) have been identified in the first phase, which are tasked to prepare online training material with focus on latest developments in the discipline, new & emerging trends, pedagogical improvements and methodologies for transacting revised curriculum. Through ARPIT all in-service teachers, irrespective of their subject and seniority have been given an enabling opportunity to keep abreast of the latest developments in their disciplines through the technology based online refresher courses. The philosophy of ARPIT shall be Anybody, Anywhere, Anytime and the teachers shall be at liberty to do these courses and choose the subjects freely. The NRCs have initially developed 3 minute video(s) which have been assessed technically by AICTE and after having met the MOOC guidelines; the same have been approved and uploaded on SWAYAM Portal. The course is a 40-hour module with 20 hours of video content and 20 hours of non-video content. They are offered in a highly flexible format and can be done at one’s own pace and time. There are built-in assessment exercises and activities as part of the academic progression in the course. At the end of the course, they will be a terminal assessment which can be either online or a written examination. All faculties who have successfully completed the online refresher course will be certified.

Under the “Blended and Intensified Mission Mode”, the Human Resource Development Centre will be a UGC-sponsored separate entity on the similar lines of an inter-university institute catering to the needs of colleges and universities within state/neighboring states. As the geographical distribution of HRDCs is not an outcome of planned optimal outcome based on efficiency and equity, an HRDC already located in a university will have to draw upon all the possible existing resources available in the university as well as in other universities and learning institutions within the state and outside to become a spatial knowledge resource equity.

HRDCs are geared up to take up the challenges of induction program for newly appointed teachers and the duration of OPs/RCs is being reduced to one-week online program with focus on Rethinking Education” that is necessitated due to powerful ubiquitous technology enabled feasibility to facilitate highly dynamic, adaptable and engaging virtual learning environments, personalized lifelong learning opportunities by making it

compulsory for the participants. In this way all the OPs and RCs shall be conducted in blended mode. "One Week training programs at all levels of Faculty" on various inter disciplinary topics and need based topics has been incorporated. OERs/ MOOCs and Outcome based Education in all our Orientation and Refresher courses have been included. The following requisites are included in the statement of philosophy, to achieve the target under "Intensified Mission Mode" for which, the faculty structure is revised and effective management of HRDCs through the UGC-Standing Committee by active involvement of decision makers and leaders in Higher Education, to make the HRDCs more effective:

- A board and administration that builds teacher participation into decision-making processes
- Challenge in a supportive environment
- Fair but firm discipline
- Individualized programs, individual pacing in particular
- Observation of rights coupled with insistence on responsibilities
- HEIs that are comfortable and well-equipped
- Support and participation by the community, the home in particular, in educating each student
- Teachers that, among other things, demonstrate:
  - Appropriate communication skills with groups and individuals
  - Expertise in their content areas
  - Liking for people, pupils in particular
  - Support for decisions of the UGC-HRDC

Courses under UGC-HRDC are conducted round the year and shall be non-vocational. The core academic staffs will perform the various functions outlined above synergistically with CEC-EMRCs and Centers established under PMMMMNTT which may be executed under mutual agreement as per Tripartite MoU.

### **7.1 New approaches to faculty development and refresher programmes shall be constantly evolved in view of requirement for MOTIVATED, ENERGIZED AND CAPABLE FACULTY.**

- a) Current faculty development initiatives are largely training-centred. New approaches to faculty development may include: technology use and integration for ensuring annual refresher training of faculty; early tenure mentoring involving experienced academics/ specialists; creating subject-based networks; building a repository of curricular materials and learning resources; providing support for research; ensuring opportunities for participation in seminars/conferences (national and international), etc.
- b) While the expansion of refresher programs in regular classroom mode can still be limited in its coverage, online refresher programs through digital platforms such as ARPIT-SWAYAM can be made a regular annual programme where the training modules can be prepared by the global and national best-ranked institutions.
- c) The online training programmes will address issues relevant to the practice of teaching, including perspectives in education, content, pedagogy, interrelated nature of subjects, school culture, and so on.
- d) The resource people for delivering these CPD programmes will be carefully selected, effectively trained, and will have tenure in the role. The capacity of developers of the module will be strengthened through programmes organized at identified Research-intensive universities, which will be funded for the purpose.
- e) Teachers will be given access to the internet and to technology platforms from their homes.



- f)** In order to cater to the largest system of HEI in India, Schools /Departments of Education must also be able to offer online and blended programmes to enable practicing teachers to continue their higher education and to facilitate professional mobility.
- g)** Launching the National Tutor's Programme (NTP)
- i. Professionals from various fields and retired faculty who are willing to provide their academic services voluntarily to HEIs in nearby geographical vicinity and who meet some stipulated eligibility criteria can be encouraged to join as a National Tutor.
  - ii. A dossier of Emeritus Faculties will be compiled who are senior academicians, scientists, educationists, retired government officials who are academically fit and willing to contribute to the HEIs in any appropriate manner can be drawn up.
  - iii. The role of a tutor would be to guide the students and the faculty on collaborative research, critical thinking, on how to work in a team, how to arrive at independent decisions, how to handle stress, among many other aspects.
  - iv. The tutors can be empanelled onto any of the institutions and an institutional mechanism can be developed to specify how many times a National Tutor may come and address the students. There can be both general and discipline-specific tutors.
  - v. Equally important is to devise a scheme within the National Tutors Program to bring back highly qualified women who have had a break in their career to reconnect to society by providing avenues for teaching assignments by linking them to geographically nearby HEIs/ CoEs/ TLCs. This would ensure that the intellectual soft power gained by these bright women are harnessed and leveraged for teaching/tutoring.
- h)** Establishment of National Academy for Teaching, Learning & Leadership
- i. A National Academy for Teaching, Learning and Leadership will be established (NEP2020) which will coordinate and synergize with the CoEs & TLCs to strengthen faculty capacity for improving the teaching-learning process and instil leadership skills in senior faculty.
  - ii. The Academy will also undertake activities that would help infuse respect for a teaching career and elevate the teaching profession, with a sense of creating a fraternity in the community.
  - iii. Build capacity of faculty to take up academic leadership positions: Outstanding faculty with demonstrated leadership and management skills would be identified and trained over time to take on important academic leadership positions. The existing career path will be revised to allow opportunities for taking up leadership roles and participate in leadership development programmes on the lines of Leadership for Academicians Programme (LEAP).
  - iv. A large pool of outstanding senior/retired faculty, willing to provide short term mentoring/professional support to University/ College teachers must be funded and established, particularly those with the ability to teach in Indian languages. Outstanding people for specific subjects or geographies must be specially considered. This pool must be fully utilised for improvement of the quality of HEIs across disadvantaged districts
- i)** Promote research on pedagogical research and teaching learning in higher education: India has a good tradition of pedagogical research in school education. Higher education as a specialized area of study and research has not yet developed in India. Consequently, India does not have a good tradition of research on teaching-learning and classroom practices in higher education. The university departments need to promote research on teaching-learning and pedagogical practices in higher education as an integral part of their priority areas of intervention. The funding process may prioritize this area of research.
- j)** Human Resource Management Systems
- i. Indian universities are undertaking recruitment, retention, and development of academic and non-academic staff in a fragmented manner.
  - ii. To ensure professional management of HEIs, universities should upgrade the existing Human Resource

- Management Departments as a servicedepartment.
- iii. These Human Resource Departments would take the best care of human resource in the universityintermsofacademicplanning,recruitmentmethodologiestobeadoptedincluding headhunting, retention strategies, staff development and training, personal and professional counselling and gracious exit on superannuation & need-basedre-employment.

## 8. SYSTEMATIC BODY KNOWLEDGE:

### 8.1 Faculty Development Programme offered by HRDCs excluding Refresher Courses

- Orientation towards Higher Education & Curriculum Aspects
- Professional Values, Ethics, Ecology & Sustainable Development
- Communication Skills, Modes and Knowledge Dissemination
- Instructional Planning and Delivery
- Technology Enabled Learning and Life-long Self-learning
- Effective Modes of Student Assessment and Evaluation
- Creative Problem Solving, Innovation and Meaningful R&D
- Institutional Management & Administrative Procedures

Alternatively, faculty directors or PIs may integrate readings into their mentoring development plan and provide a structured engagement of the manual during the course of a program:

### 8.2 Generic Modules

- Orientation towards Higher Education & Curriculum Aspects
- Professional Values, Ethics, Ecology & Sustainable Development
- Communication Skills, Modes and Knowledge Dissemination
- Instructional Planning and Delivery
- Technology Enabled Learning and Life-long Self-learning
- Effective Modes of Student Assessment and Evaluation
- Creative Problem Solving, Innovation and Meaningful R&D
- Institutional Management & Administrative Procedures

### 8.3Optional Modules as per the requirements of RUs, TUs and ACs:

#### 8.3.1 RESEARCH INTENSIVE UNIVERSITY

➤ <b>Research ,Innovation and Social Relevance</b>
➤ <b>Institutional Collaboration for Research and Innovation</b>
➤ <b>Project Planning and Management</b>
➤ <b>Business Driven Research and Integration</b>
➤ <b>Intellectual Property Rights (IPR)</b>
➤ <b>Institutional Management for Entrepreneurship</b>

#### RESEARCH, INNOVATION AND SOCIAL RELEVANCE

Research and Innovation plays a crucial role in the development of future technology which is transformed into new product from a processes and services. The multi fold opportunities for technical institutes, leadership in research and development, management of innovation and technology, partnership, networking, alliances and commercialization of research need to be explored. The faculty of technical institutions needs to be trained in all these aspects. This

module focusses on various learning constituents such as fundamental and applied research, managing innovation and technical development, culture of philanthropy in an organization, ethical and effective fundraising strategies of social relevance.

#### **OUTCOMES:**

After undergoing this module, the learner will be able to:

- Understand techniques for converting creativity to research Create a proposal for entrepreneurial activities.
- Gain insight into undergraduate education and research. Understand principles and practices of fund raising.
- Explore types of fund raising and social integration.
- Explore various issues related to challenges and opportunities faced by industries through case studies

#### **INSTITUTIONAL COLLABORATION FOR RESEARCH AND INNOVATION**

Global outlook of Indian education is certainly a game changer in this age of fast growth and unlimited economic opportunities. Institutional collaboration is important in higher education, which will remarkably transform the higher education ecosystem. Institutional collaboration enables decision makers to connect and come together to learn from one another, find common answers and work for common cause. Therefore, the faculty in technical institutes needs to be imparted relevant training in the area of institutional collaboration for research and innovation. This module aims to develop desired competencies to collaborate with others for research and innovative activities. The module covers various learning constituents such as national/ international policies on institutional collaboration, technology development and innovation, funding from national/ international agencies, intellectual property rights, technology transfer and commercialization.

#### **OUTCOMES:**

After undergoing this module, the learner will be able to:

- Comprehend the National/ International policies on institutional collaboration Develop strategies for quality enhancement
- Understand the impact of institutional collaborations
- Gain insight into technology development and innovation Explore funding from National/ International agencies
- Explore collaboration with National/ International institutes
- Explore intellectual property right, technology transfer and commercialization

#### **PROJECT PLANNING AND MANAGEMENT**

In order to develop the process / product strategies needs to be developed. Although meetings, discussions are carried out to achieve the target, organizations have experienced that the objectives could not be accomplished if the team members are not focussed and do not continuously monitor the required development to carry out objectives. Through this course it will be emphasized upon to impart the knowledge about the concept and aspects of planning a project through the specially established war room. The module will focus on development of understanding about relation between project planning, war room and other resources. The learning will emphasise on the dynamics of project selection, scheduling, estimation and evaluation.

#### **OUTCOMES**

After completing the module, the learner will be able to:

- Appreciation of importance of project pre-evaluation Expertise in selecting a project and defining its scope
- Achieving Targets through project budgeting, scheduling, performance and evaluation Expertise in Formulation of Project Proposal
- Understanding concept of war room and its application in Project Planning and Management.

#### **BUSINESS DRIVEN RESEARCH AND INTEGRATION**

Traditionally, there has been a large disconnect between the research being carried out in the academia and the marketplace requirements. The practice of curiosity-driven scientific enquiry, emanating from fundamental human curiosity, is required to be balanced by the needs of wealth creation, employment generation, social justice and care of environment. Rapidly growing importance of knowledge has generated unprecedented demand for research to be driven by the business needs. This module develops desired competencies among the learners in undertaking research which is business driven. The module covers various learning constituents such as concept of business-driven research and integration, quantitative and qualitative business research methods, product development, creating business research project report, business strategy and research, technology management and intellectual property rights management.

#### **OUTCOMES:**

After undergoing this module, the learner will be able to :

- Understand the concept of 'Business driven research and integration'
- Develop an understanding of the role of innovation as a linkage between market places and technology
- Gain insight into the role of technology management in the conventional technology-oriented organizations / industries
- Create business strategy based upon quantitative and qualitative research methods for technology-oriented organizations / industries
- Develop an understanding about the importance of human factor in business-driven research and integration
- Explore various issues related to IPR implementation as result of business-driven research

#### **INTELLECTUAL PROPERTY RIGHTS (IPR)**

IPR provide certain exclusive rights to the inventors or creators of that property, in order to enable them to reap commercial benefits from their creative efforts. IPR is required for better identification, planning, commercialization, rendering, and thereby protection of invention or creativity. There are several types of intellectual property protection like patent, copyright, trademark, etc. Each technical institution or industry should evolve its own IPR policies, management style, strategies, and so on depending on its area of specialty. So there is need to train the faculty of technical institutions for different types of intellectual property protection. This module covers need and concept of IPR, patent, copyright filing procedure in India, IPR system at National and Inter National Level, technology transfer and commercialization for new technology.

#### **OUTCOMES**

On completion of this module, the learner will be able to:

- Describe the need for IPR and the concept of IPR File a Patent in India
- Manage their IP other than Patents using different mechanisms
- Use the Intellectual Property Support System at National and International Level as and when required
- Describe the important aspects pertaining to International Patent Filing
- Maintain the Intellectual Records, formulate IP Policy & Implementation it in their respective institutions
- Choose action plan and strategy for Technology Transfer and Commercialization of Intellectual Property for a new technology developed by their respective institutions

#### **INSTITUTIONAL MANAGEMENT FOR ENTREPRENEURSHIP**

In the present Post Covid-19 scenario, unemployment has become one of the major concerns. The severity of this problem has been aggravated by increasing population, automation in industries along with various other associated socio-economic problems. Developing expertise among youth to set up their-own enterprise could be one of the solutions to curb the issue. The aspect of developing expertise in business start-up involves development of capability of opportunity identification, innovative mind-set, development of technology, protecting one's own developed intellect. This capacity building is further to be complemented by the knowledge about the policies and programs of Government initiated at the National Level such as: under Atma Nirbhar Bharat Abhiyan, Make in India, Start-up India, Digital India Programs etc., role and functioning of the Ministry for the

promotion of Skill Development and Entrepreneurship (MSDE), Liberal financing of ventures through schemes like Collateral free loans for business Mudra Loan, and other Bank Schemes, States and Union Territories level policy initiatives to create business ventures in the country. The role of incubator for business start-up push and their initial support for digital marketing and management are also dealt with in the module.

### **OUTCOMES**

After completing the module, the learner will be able to:

- Develop understanding about the complete process of making an entrepreneur.
- Appreciate the importance of innovations and technology development in the path to business start-up.
- Gather information pertaining to set-up and management of incubation centres in institutions.
- Improve understanding of the process of start-ups, patenting and dealing with the intricacies of IPR issues.

### **8.3.2 TEACHING INTENSIVE UNIVERSITY/ AUTONOMOUS DEGREE AWARDDING INSTITUTE**

➤ <b>Emerging Pedagogy</b>
➤ <b>Learning Analytics</b>
➤ <b>Cognitive Centered Curriculum Development</b>
➤ <b>Virtual Education</b>
➤ <b>Best Practices For MOOCs</b>
➤ <b>Data Analytics tools and applications in educational data</b>
➤ <b>AI and Machine Learning for Technology enabled teaching-learning</b>

#### **EMERGING PEDAGOGY**

Emerging pedagogy allows students to grasp theoretical concepts faster and in greater depth. Emerging pedagogy covers critical pedagogy, digital pedagogy, experiential learning and immersive learning, the intersection between critical pedagogy and digital pedagogy to arrive at the best social and civil uses for technology and new media in education may be used in emerging pedagogy. Also, immersive learning enhances the learning process by adding contents that are interactive and engaging. Experiential and immersive learning can be provided by tools such as 3D learning environment, virtual reality (VR), augmented reality (AR), and mixed reality. It facilitates learners to perform experiments, practice and learn by doing. Augmented Reality in education makes learning itself more engaging and interesting. There is a need to train teachers in the area of emerging pedagogy as AR, VR and mixed reality have a lot of potential usage in education.

The objective of this module is to enable learners to improve teaching methodologies using 3D technologies like AR and VR. The module covers basics of emerging pedagogy along with applications of Augmented Reality and Virtual Reality, benefits and challenges of AR and VR in classroom, and types of AR and VR experiences and tools.

### **OUTCOMES**

After the completion of this module, the learner will be able to:

- Transit from traditional pedagogy to socio-digital pedagogy Adopt emerging pedagogy in their classrooms
- Apply Immersive pedagogical tools in teaching
- Simulate in virtual environment with AR and VR tools for effective teaching-learning
- Use Augmented Reality and Virtual Reality in the teaching-learning process to enhance learning experiences.

#### **LEARNING ANALYTICS**

The field of learning analytics deals with online student data analysis, which holds great potential to address the challenges of higher education institutions. This module provides an overview of learning analytics in higher education and introduces tools and technologies that can be used to support strategy and policy formation in addition to readiness assessment. While the use of learning analytics tools has gained much attention in many higher education institutions, the method of getting the students data at early stage helps the academicians and policy makers of higher educational institutions to take proactive steps in developing better teaching-learning environment in the institutions.

### **OUTCOMES**

After the completion of this module, the learner will be able to:

- Describe current state of learning analytics in higher education
- Assess the extent to which issues in higher education can be addressed with available student record data.
- Implement various quasi-experimental methods of accounting for student preparation in assessing outcomes.
- Apply relevant tools and techniques for learning analytics strategy formation. Apply appropriate methods for learning analytics policy formation.
- Calculate a set of quantified student outcomes as an alternative to those currently in use.

### **COGNITIVE CENTRED CURRICULUM DEVELOPMENT**

Curriculum development is one of the most important activity in effective teaching- learning process. A well-designed curriculum can support student learning and increase student success if it is cognitive and reasoning focused. Use of cognitive learning theory and critical thinking in instructional design motivates learners towards higher-order thinking. Therefore, there is a need to train teachers in the area of cognitive-centred curriculum development. This module covers various methods to develop cognitive and reasoning focused curriculum towards achieving academic excellence among the learners. The module is entirely research based and describes the art of developing instructional material which is predominantly based on cognitive and reasoning level of the individual learners. The module provides ways to propose, implement and test instructional material that supports cognitive learning process. The learners will be able to use and apply relevant tools and techniques for cognitive and reasoning focused curriculum development along with suitable rubrics to test the learning outcomes

### **OUTCOMES**

After the completion of this module, the learner will be able to:

- Describe the concept, stages and models of cognitive and reasoning based curriculum development
- Execute various stages for curriculum development
- Transit from traditional curriculum design to industry oriented design
- Aligning the curriculum with Education 4.0 for global mobility and acceptability Design online course and liberal education curriculum

### **VIRTUAL EDUCATION**

This module has been designed to train the senior faculty of technical institutions in use of virtual education and assessment approaches to effective learning. Not all faculty members are comfortable with virtual classrooms and there is a digital divide among those who have never used even the basic audio-visual equipment, relying mainly on chalkboard and flipcharts, and younger faculty who are aware of and adept at using newer technology. It is in this context that the present module has been designed. The module will develop requisite knowledge, skills and attitudes amongst faculty to provide virtual education to students and effectively assess their performance online

### **OUTCOMES**

After going through this module, the learner will be able to:

- Describe the concept of virtual education, its need, concept, features, challenges, advantages, and tools.
- Describe the significance, features etc. of Virtual Reality and Augmented Reality. Use various modern modes of instructional delivery.
- Develop content for virtual learning.
- Manage virtual classrooms and virtual laboratory
- Describe the purpose and procedure of various types of assessment.
- Undertake e-assessment for assessing the performance of students both in theory and practical subjects.

### **BEST PRACTICES FOR MOOCS**

Massive Open Online Courses (MOOCs) are online courses that allow learners free access and unrestricted participation to any course of their choice. Besides the conventional modes of teaching such as lectures, videos and reading material; MOOCs also provide a platform for interactive forums. Due to increasing demand of online courses in present scenario, there is need to train the teachers in developing and offering MOOCs. This module aims at providing interactive MOOC learning experience and enabling the teachers to acquire knowledge and skills required to develop an effective and impactful Massive Open Online Course.

### **OUTCOMES**

After completing the learning tasks in this module, the learners will be able to:

- Understand pedagogical aspects related to online learning. Use various approaches to develop MOOC.
- Design and structure contents for MOOC.
- Design and develop an effective MOOC using best practices available. Review the MOOC developed for effective implementation.

## **9. SUGGESTED MODULES FOR FACULTY DEVELOPMENT PROGRAMME/LEADERSHIP DEVELOPMENT PROGRAMME TO BE OFFERED BY HRDCs**

### **9.1 MODULE**

#### **Institutional Development and Governance**

In the present competitive scenario for the technical education sector in India, an educational administrator should not only be an eminent academician but also be well -versed in administrative aspects of managing an academic institution. This module aims to develop administrative and management skills among the technical teachers in effective governance of the institutions.

### **OUTCOMES**

After going through this module, the learners will be able to:

- Explain the significance of institutional governance Prepare strategic plan for institutional development.
- Lead the institute for execution of various projects/ programmes.
- Implement institutional autonomy for enhancing its efficiency and effectiveness.
- Identify the quality parameters of an institution and develop processes for accreditation. Implement the best practices in engineering education systems.
- Develop strategies for quality enhancement and managing planned change.
- Conduct impact analysis of institutional projects and programmes for enhancing their effectiveness.

## 9.2 MODULE

### **Financial Resource Planning and Auditing**

Training in finance is necessary for faculty to provide them an understanding of the financial implications of their day-to-day decisions and its impact on their institution's budgetary allocation. This module aims to provide a grasp of basic financial awareness in order to plan and manage budget effectively and appreciate the core finance principles and prepare for financial audit.

#### **OUTCOMES**

After the completion of this module, the learner will be able to:

- Understand financial resources, major functions and usage.
- Develop Policies and Procedure for financial planning and budgeting. Set norms for role and functions of non-finance professionals.
- Set financial goals for sustainable Institutional development. Apply procedures for auditing of finances.
- Implement audit recommendations.

## 9.3 MODULE

### **Research, Innovation and Social Relevance**

Research and Innovation plays a crucial role in the development of future technology which is transformed into new product from a processes and services. The multi fold opportunities for technical institutes, leadership in research and development, management of innovation and technology, partnership, networking, alliances and commercialization of research need to be explored. The faculty of technical institutions needs to be trained in all these aspects. This module focusses on various learning constituents such as fundamental and applied research, managing innovation and technical development, culture of philanthropy in an organization, ethical and effective fundraising strategies of social relevance.

#### **OUTCOMES:**

After undergoing this module, the learner will be able to :

- Understand techniques for converting creativity to research Create a proposal for entrepreneurial activities.
- Gain insight into undergraduate education and research. Understand principles and practices of fund raising.
- Explore types of fund raising and social integration.
- Explore various issues related to challenges and opportunities faced by industries through case studies

## 9.4 MODULE

### **Business driven research and integration**

Traditionally, there has been a large disconnect between the research being carried out in the academia and the marketplace requirements. The practice of curiosity-driven scientific enquiry, emanating from fundamental human curiosity, is required to be balanced by the needs of wealth creation, employment generation, social justice and care of environment. Rapidly growing importance of knowledge has generated unprecedented demand for research to be driven by the business needs. This module develops desired competencies among the learners in undertaking research which is business driven. The module covers various learning constituents such as concept of business-driven research and integration, quantitative and qualitative business research methods, product development, creating business research project report, business strategy and research, technology management and intellectual property rights management.



## **OUTCOMES:**

After undergoing this module, the learner will be able to :

- Understand the concept of 'Business driven research and integration'
- Develop an understanding of the role of innovation as a linkage between market places and technology
- Gain insight into the role of technology management in the conventional technology-oriented organizations / industries
- Create business strategy based upon quantitative and qualitative research methods for technology-oriented organizations / industries
- Develop an understanding about the importance of human factor in business-driven research and integration
- Explore various issues related to IPR implementation as result of business-driven research

## **9.5 MODULE**

### **Institutional collaboration for research and innovation**

Global outlook of Indian education is certainly a game changer in this age of fast growth and unlimited economic opportunities. Institutional collaboration is important in higher education, which will remarkably transform the higher education ecosystem. Institutional collaboration enables decision makers to connect and come together to learn from one another, find common answers and work for common cause. Therefore, the faculty in technical institutes needs to be imparted relevant training in the area of institutional collaboration for research and innovation. This module aims to develop desired competencies to collaborate with others for research and innovative activities. The module covers various learning constituents such as national/ international policies on institutional collaboration, technology development and innovation, funding from national/ international agencies, intellectual property rights, technology transfer and commercialization.

### **OUTCOMES:**

After undergoing this module, the learner will be able to :

- Comprehend the National/ International policies on institutional collaboration Develop strategies for quality enhancement
- Understand the impact of institutional collaborations
- Gain insight into technology development and innovation Explore funding from National/ International agencies
- Explore collaboration with National/ International institutes
- Explore intellectual property right, technology transfer and commercialization

## **9.6 MODULE**

**Emerging Pedagogy** Emerging pedagogy allows students to grasp theoretical concepts faster and in greater depth. Emerging pedagogy covers critical pedagogy, digital pedagogy, experiential learning and immersive learning, the intersection between critical pedagogy and digital pedagogy to arrive at the best social and civil uses for technology and new media in education may be used in emerging pedagogy. Also, immersive learning enhances the learning process by adding contents that are interactive and engaging. Experiential and immersive learning can be provided by tools such as 3D learning environment, virtual reality (VR), augmented reality (AR), and mixed reality. It facilitates learners to perform experiments, practice and learn by doing. Augmented Reality in education makes learning itself more engaging and interesting. There is a need to train teachers in the area of emerging pedagogy as AR, VR and mixed reality have a lot of potential usage in education.

The objective of this module is to enable learners to improve teaching methodologies using 3D technologies like AR and VR. The module covers basics of emerging pedagogy along with applications

of Augmented Reality and Virtual Reality, benefits and challenges of AR and VR in classroom, and types of AR and VR experiences and tools.

### **OUTCOMES**

After the completion of this module, the learner will be able to:

- Transit from traditional pedagogy to socio-digital pedagogy Adopt emerging pedagogy in their classrooms
- Apply Immersive pedagogical tools in teaching
- Simulate in virtual environment with AR and VR tools for effective teaching-learning
- Use Augmented Reality and Virtual Reality in the teaching-learning process to enhance learning experiences.

## **9.7 MODULE**

### **Learning Analytics**

The field of learning analytics deals with online student data analysis, which holds great potential to address the challenges of higher education institutions. This module provides an overview of learning analytics in higher education and introduces tools and technologies that can be used to support strategy and policy formation in addition to readiness assessment. While the use of learning analytics tools has gained much attention in many higher education institutions, the method of getting the students data at early stage helps the academicians and policy makers of higher educational institutions to take proactive steps in developing better teaching-learning environment in the institutions.

### **OUTCOMES**

After the completion of this module, the learner will be able to:

- Describe current state of learning analytics in higher education
- Assess the extent to which issues in higher education can be addressed with available student record data.
- Implement various quasi-experimental methods of accounting for student preparation in assessing outcomes.
- Apply relevant tools and techniques for learning analytics strategy formation. Apply appropriate methods for learning analytics policy formation.
- Calculate a set of quantified student outcomes as an alternative to those currently in use.

## **9.8 MODULE**

### **Cognitive centred Curriculum Development**

Curriculum development is one of the most important activity in effective teaching- learning process. A well-designed curriculum can support student learning and increase student success if it is cognitive and reasoning focused. Use of cognitive learning theory and critical thinking in instructional design motivates learners towards higher-order thinking. Therefore, there is a need to train teachers in the area of cognitive-centred curriculum development. This module covers various methods to develop cognitive and reasoning focused curriculum towards achieving academic excellence among the learners. The module is entirely research based and describes the art of developing instructional material which is predominantly based on cognitive and reasoning level of the individual learners. The module provides ways to propose, implement and test instructional material that supports cognitive learning process. The learners will be able to use and apply relevant tools and techniques for cognitive and reasoning focused curriculum development along with suitable rubrics to test the learning outcomes

### **OUTCOMES**

After the completion of this module, the learner will be able to:

- Describe the concept, stages and models of cognitive and reasoning based curriculum development
- Execute various stages for curriculum development
- Transit from traditional curriculum design to industry oriented design
- Aligning the curriculum with Education 4.0 for global mobility and acceptability Design online course and liberal education curriculum

## 9.9 MODULE

### Virtual education

This module has been designed to train the senior faculty of technical institutions in use of virtual education and assessment approaches to effective learning. Not all faculty members are comfortable with virtual classrooms and there is a digital divide among those who have never used even the basic audio-visual equipment, relying mainly on chalkboard and flipcharts, and younger faculty who are aware of and adept at using newer technology. It is in this context that the present module has been designed. The module will develop requisite knowledge, skills and attitudes amongst faculty to provide virtual education to students and effectively assess their performance online

### OUTCOMES

After going through this module, the learner will be able to:

- Describe the concept of virtual education, its need, concept, features, challenges, advantages, and tools.
- Describe the significance, features etc. of Virtual Reality and Augmented Reality. Use various modern modes of instructional delivery.
- Develop content for virtual learning.
- Manage virtual classrooms and virtual laboratory
- Describe the purpose and procedure of various types of assessment.
- Undertake e-assessment for assessing the performance of students both in theory and practical subjects.

## 9.10 MODULE

### Best practices for MOOCs

Massive Open Online Courses (MOOCs) are online courses that allow learners free access and unrestricted participation to any course of their choice. Besides the conventional modes of teaching such as lectures, videos and reading material; MOOCs also provide a platform for interactive forums. Due to increasing demand of online courses in present scenario, there is need to train the teachers in developing and offering MOOCs. This module aims at providing interactive MOOC learning experience and enabling the teachers to acquire knowledge and skills required to develop an effective and impactful Massive Open Online Course.

### OUTCOMES

After completing the learning tasks in this module, the learners will be able to:

- Understand pedagogical aspects related to online learning. Use various approaches to develop MOOC.
- Design and structure contents for MOOC.
- Design and develop an effective MOOC using best practices available. Review the MOOC developed for effective implementation.

## 9.11 MODULE

### **Institutional Management for Entrepreneurship**

In the present Post Covid-19 scenario, unemployment has become one of the major concerns. The severity of this problem has been aggravated by increasing population, automation in industries along with various other associated socio-economic problems. Developing expertise among youth to set up their-own enterprise could be one of the solutions to curb the issue. The aspect of developing expertise in business start-up involves development of capability of opportunity identification, innovative mind-set, development of technology, protecting one's own developed intellect. This capacity building is further to be complemented by the knowledge about the policies and programs of Government initiated at the National Level such as: under Atma Nirbhar Bharat Abhiyan, Make in India, Start-up India, Digital India Programs etc., role and functioning of the Ministry for the promotion of Skill Development and Entrepreneurship (MSDE), Liberal financing of ventures through schemes like Collateral free loans for business Mudra Loan, and other Bank Schemes, States and Union Territories level policy initiatives to create business ventures in the country. The role of incubator for business start-up push and their initial support for digital marketing and management are also dealt with in the module.

### **OUTCOMES**

After completing the module, the learner will be able to:

- Develop understanding about the complete process of making an entrepreneur.
- Appreciate the importance of innovations and technology development in the path to business start-up.
- Gather information pertaining to set-up and management of incubation centres in institutions.
- Improve understanding of the process of start-ups, patenting and dealing with the intricacies of IPR issues.

## 9.12 MODULE

### **Project Planning and Management**

In order to develop the process / product strategies needs to be developed. Although meetings, discussions are carried out to achieve the target, organizations have experienced that the objectives could not be accomplished if the team members are not focussed and do not continuously monitor the required development to carry out objectives. Through this course it will be emphasized upon to impart the knowledge about the concept and aspects of planning a project through the specially established war room. The module will focus on development of understanding about relation between project planning, war room and other resources. The learning will emphasise on the dynamics of project selection, scheduling, estimation and evaluation.

### **OUTCOMES**

After completing the module, the learner will be able to:

- Appreciation of importance of project pre-evaluation Expertise in selecting a project and defining its scope
- Achieving Targets through project budgeting, scheduling, performance and evaluation Expertise in Formulation of Project Proposal
- Understanding concept of war room and its application in Project Planning and Management.

## 9.13 MODULE

### Case Studies and Problem Mapping

The current educational paradigm needs to be revisited and reframed to increase productivity, efficiency, quality and to develop new skills and talent to enable the pass-outs from institutions to cope with the changing scenario. The case study based and problem-based learning pedagogy is considered to enhance student learning through problem mapping and also aid in the development of facilitator delivering the same. Therefore, the faculty of technical institutions needs to be trained in using case studies and problem mapping for enhancing teaching-learning. This module has been designed to train the senior faculty of technical institutions to integrate complex engineering problem solutions with case studies and problem mapping both in pedagogy and research.

### OUTCOMES

After going through this module, the learner will be able to:

- Relate to present global business scenario, future trends as well as the complex nature of sustainable development in the light of social, economic and environmental balance.
- Apply case study as pedagogy for enhancing teaching learning.  
Apply case study as a research method for improving the quality of technical education.
- Apply problem-based learning for solving problems in technical and management domain.

## 9.14 MODULE

### Intellectual Property Rights (IPR)

IPR provide certain exclusive rights to the inventors or creators of that property, in order to enable them to reap commercial benefits from their creative efforts. IPR is required for better identification, planning, commercialization, rendering, and thereby protection of invention or creativity. There are several types of intellectual property protection like patent, copyright, trademark, etc. Each technical institution or industry should evolve its own IPR policies, management style, strategies, and so on depending on its area of specialty. So there is need to train the faculty of technical institutions for different types of intellectual property protection. This module covers need and concept of IPR, patent, copyright filing procedure in India, IPR system at National and Inter National Level, technology transfer and commercialization for new technology.

### OUTCOMES

On completion of this module, the learner will be able to:

- Describe the need for IPR and the concept of IPR File a Patent in India
- Manage their IP other than Patents using different mechanisms
- Use the Intellectual Property Support System at National and International Level as and when required
- Describe the important aspects pertaining to International Patent Filing
- Maintain the Intellectual Records, formulate IP Policy & Implementation it in their respective institutions
- Choose action plan and strategy for Technology Transfer and Commercialization of Intellectual Property for a new technology developed by their respective institutions

## 9.15 MODULE

### Data Analytics

Nowadays, majority of the decisions are taken in various organizations/sectors by analyzing stakeholders data. This is true for education sector also. Therefore, minimal knowledge of data analysis is mandatory at all levels in education sector, to take proactive decisions in improving the system. Education and training are progressively taking place on digital environments. As a result, these environments are generating unstructured amount of interaction and behavioral data that can be used to design better learning and teaching models for teaching, learning and assessment. The main objective of this module is to use different kind of methods from data analytics to identify

unique patterns from educational data. In particular, the learners will learn about methods and models that are being used in data analytics, students' behavior modeling, and personalized learning material recommendations. The module will be covered both at the theoretical level as well as the practical level where software tools (such as R programming / Python) will be used to analyse the data.

### **OUTCOMES**

After the completion of this module, the learner will be able to:

- Apply basic principles of data mining and machine learning algorithms on educational data Handle various challenges in educational data mining
- Practice data mining methods and algorithms for educational data analytics
- Use analytical methods to answer educational questions related to student progress, learning style, and assessment.
- Practice educational application and learning management system with learning analytics Use software programming (such as R programming / Python) for analytics validity

## **9.16 MODULE**

### **AI and Machine Learning for Engineering Applications**

Artificial intelligence (AI) is an interdisciplinary activity of engineering concerned with performing tasks using programmable machines and computers that typically require human intelligence. In the twenty-first century, AI techniques have experienced a resurgence following concurrent advances in computer power, large amounts of data, theoretical understanding; and AI techniques have become an essential part of the technology industry. The objective of this module is to impart knowledge about necessary and emerging concepts of Artificial Intelligence and tools required to implement the concepts in practice. This module will serve as a comprehensive introduction to the core techniques used in AI based industry like Machine Learning, Natural Language Processing (NLP), Computer Vision, Robotics etc. The module provides insight into IoT, data analytics and cloud computing along with various computational platforms for application development.

### **OUTCOMES**

After the completion of this module, the learner will be able to:

- Understand the basic concept of machine learning.
- Acquire knowledge of biologically inspired computations as well as traditional intelligent learning methods for search, optimization and classification.
- Understand approaches to syntax and semantics in NLP.
- Interpret and apply various computer vision algorithms and applications. Apply fuzzy logic for engineering problems.
- Perform kinematic and dynamic analyses for implementation of Robotics tasks. Develop real life projects using modern platforms like IoT, cloud etc.

## **9.17 MODULE**

### **Clean, Green and Sustainable Technology**

The objectives of this course is to impart knowledge of green and clean technologies for mitigating pollution and for meeting the challenges of sustainable development.

### **OUTCOMES**

After the completion of this module, the learner will be able to:

- Understand the sources and causes of different types of pollution
- Understand the concept of clean production, development for minimizing waste emission at source
- Understand the concept of waste minimization and zero impact initiatives in manufacturing

- Apply knowledge of sustainable construction techniques in infrastructural development  
Understand the concept of energy conservation, recuperation and co-generation, renewable energy sources
- Understand the prevention and control measures in water, air and solid waste pollution

## 9.18 MODULE

### Real Life Engineering Problems

To enable solve real life engineering problems using acquired knowledge and skills, the faculty of technical institutions must be made aware about international and national standards to be followed to orient the teaching-learning in the right direction. Faculty should integrate the requisite skills and tools both in pedagogy and research to empower students to solve complex engineering problems. This module aims to impart knowledge about Washington Accord accreditation framework adopted worldwide to improve the quality, productivity and mobility of engineers by following best practices in standards, assessment and monitoring of engineering education and professional competence. The module also covers use of some tools viz. case study approach, concept mapping and problem based learning for enhancing the teaching-learning experience. The current technological trends and relevant skillsets required are also covered in the module.

### OUTCOMES

After going through this module, the learner will be able to:

- Solve real life engineering problems.
- Apply case study as a tool in pedagogy and research for effective teaching learning.
- Use concept mapping as a tool in pedagogy and research for enhanced teaching learning.  
Apply problem based learning for improving application, analytical and creative skills of students.
- Apply project based learning to attain program outcomes.
- Appreciate the process and measures of quality technical education.

## 9.19 MODULE

### Internet of Things (IoT)

Internet of Things (IoT) is currently an emerging technology that is of high interest to academia, government, industry and society. Its diverse applications in all domains of engineering and technology has made it more and more interdisciplinary. IoT cuts across different application-domain verticals that include agriculture, space, healthcare, manufacturing, construction, and mining. On similar lines, Industrial Internet of Things (IIoT) is an application of IoT in industries to modify various industrial systems. IIoT links the automation system with enterprise planning and product lifecycle which includes use of intelligent tools and technologies like Cloud Computing, Machine Learning, and Data Analytics. It is very important for the faculty in technical institutions to learn the fundamentals of IoT as an interdisciplinary subject. Hence this module, covers background technologies and emerging technologies for IoT and its usage in smart applications.

### OUTCOMES

After the completion of this module, the learner will be able to:

- Describe the current state of Internet of Things and IIoT
- Assess the extent of adoption of IoT/IIoT technologies in different engineering domains.  
Implement various IoT based projects
- Apply relevant tools and techniques for interdisciplinary projects
- Apply appropriate methods for national initiatives like Swach Bharat Abhiyaan and Smart City Project.

## 9.20 MODULE

**Developing Academic Management and Leadership** Educational institutes require effective leaders and academic administrators if they are to achieve their goals and provide world-class education. Today's educators must acquire leadership and management skills to direct organizational change, establish relationships with stakeholders and navigate challenges at various levels. The objective of this module is to impart desired knowledge to enable the learners to lead in creating an efficient organization and manage the resources effectively.

### OUTCOMES

After the completion of this module, the learner will be able to:

- Develop a personal leadership philosophy.
- Use various methods to inspire and energise team members in creating an efficient and effective organisation.
- Understand organizational impact of individual and group behaviour. Improve the capacity and capability of an organization.
- Implement the values of Total Quality Management to bring improvement in educational process.
- Manage organization's resources effectively.
- Lead and manage change and trend.

## 9.21 MODULE

### SWOC ad Fostering Forecasting

In the era of competition, every institute wants to achieve its goals, improve teaching-learning process and become more relevant. This module aims at identifying and analysing the strengths and weaknesses of an institute, and the opportunities and challenges which it has to explore. It also enables to identify factors that influence the working of an institute thus providing useful information for future planning. With strong forecasting skills, one can become better prepared to benefit from change and avoid future shock. This module also aims at fostering forecasting skills among the learners

### OUTCOMES

At the end of this module, the learner will be able to:

- explain the terms strength, weakness, opportunity and challenge in the context of SWOC analysis.
- identify various internal and external factors in institute environment using SWOC analysis.
- undertake SWOC analysis.
- use SWOC analysis for decision-making.
- Make forecast to deal with changes and explore opportunities.

## 9.22 MODULE

**Removing Obsolescence and Enhancing Efficiency** This module has been designed to prepare the faculty of technical institutes to avoid stagnation due to inability to contribute to the educational system leading to obsolescence. The learners will be exposed to various opportunities and means for growth and aspects of leadership development and succession planning. The learners will be trained to work in a more efficient and transparent manner thus enhancing their efficiency and lowering resource wastage.

### OUTCOMES

After going through this module, the learners will be able to:

- List reasons for poor efficiency in institutes. Prepare report after SWOT analysis



- Identify factors affecting the efficiency of the Institute
- Identify requirements for development of an ERP system.
- Draw a plan for motivating the faculty and staff for improved efficiency. Use an effective teaching learning approach in different situations
- Draw futuristic plan for avoiding stagnation leading to obsolescence. Write proposal for sponsored projects and consultancy work.

## 9.23 MODULE

### **Institutional Assessment**

In the new education policy, the educational institutes will be provided autonomy which will need upgradation of institute resources and development of systems to run the institute at upgraded level. Also in the current competitive environment, the engineering institutes have to keep abreast with the fast changing technological developments to develop employable skills in the pass-outs. The institute performance and preparedness in terms of resources, expertise, teaching-learning methodologies and evaluations systems need to be reviewed periodically to evaluate its efficacy and efficiency. This module has been designed to enable the faculty members to develop parameters for institute review, prepare for review process, mentor junior colleagues on implementing the outcomes of institute review and conduct peer review of other institutes.

### **OUTCOMES**

After going through this module, the participants will be able to:

- Understand the process and parameters for institute review. Develop the system as per review requirements.
- Assess the institute based on review criteria. Prepare the institute for external review.
- Prepare action taken report based on review report.

## 9.24 MODULE

**Accreditation System and Ranking Framework** Accreditation and ranking of educational institutes has emerged as an accepted performance indicator for judging the quality of educational processes being followed in the institutes. The institutes need to be taken to desirable quality levels by ensuring availability of resources and maintenance of processes in teaching-learning and assessment of students. Further, the teachers need to be brought to the level where they appreciate the importance of accreditation and institutional ranking. This module has been deigned to develop capabilities among the learners to understand the accreditation and ranking processes and work towards getting accreditation and attaining good standing in rankings.

### **OUTCOMES**

After going through this module, the participants will be able to:

- Evaluate quality of various systems in the institute.
- Develop KPIs for given process.
- Apply for NBA/NAAC accreditation,
- Mentor junior faculty on quality, accreditation and ranking framework.
- Setup quality question papers and evaluate the students learning outcomes based on criteria based assessment.

## **9.25 MODULE**

### **Branding of Institutions**

Due to expansion of higher education system, a large number of institutions have come up which are providing education with different quality levels. Branding helps in development of the institute as well as attracting clients and other stakeholders based on the brand value of the institute. This module has been designed to develop understanding of various aspects institute branding and to develop capability among the faculty members to engage in brand building and brand management of institution.

#### **OUTCOMES:**

After undergoing this module, the learner will be able to:

- Understand various issues related to institutional brand management. Create a brand identity and brand strategy.
- Gain insight into brand positioning for Institutions.
- Understand methods to manage institutional brand assets. Engage in brand building of institution.
- Explore various issues related to brand management through case studies.

UGC has constituted a committee of the following members to formulate guidelines for mentorship of teachers in the Non-technical stream (NIIMT).

1. Prof A. C. Pandey, Director, IUAC, New Delhi Chairperson
2. Prof. J. B. Nadda, Director, CEC, New Delhi Member
3. Dr. Upinder Dhar, VC, Shri Vashnav Vidyapeeth, Indore Member
4. Dr. Anup K Singh, DG, Nirma University, Ahmedabad Member
5. Prof. Yogender Verma, Retired Director, HRDC,  
H.P University, Shimla Member
7. Dr. Archana Thakur, JS, UGC, New Delhi Coordinating Officer
7. Prof.(Dr.) Shyam Sundar Pattnaik, Director,  
National Institute of Technical Teachers Training and Research (NITTTR),  
Sector-26, Chandigarh-160019, India **Co-opted member**

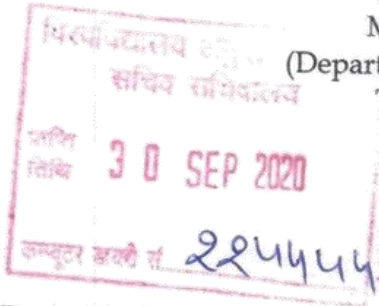
F. No. 10-1/2020-TS.IV

Government of India

Ministry of Education

(Department of Higher Education)

Technical Section-IV



Shastri Bhawan, New Delhi-110 001

Dated, the 23<sup>rd</sup> September, 2020

To,

Prof. D.P. Singh  
Chairman, UGC  
Bahadur Shah Zafar Marg  
New Delhi - 110002

CM SECRETARIATE

DY No. 45112

DATE 30-9

Subject:- **Development of guidelines for induction and mentorship of teachers in non-technical institutions - Reg.**

Sir,

One of the recommendations of National Education Policy (NEP) is to develop a system of mentorship by distinguished and retired faculty. In this connection, Secretary (HE)'s D.O. dated 08.09.2020 to you refers.

2. At present, INFLIBNET maintains a VIDWAN portal which has all the academic details of the university teachers. INFLIBNET has also started IRINS (Indian Research Information Network System) in March 2019. Higher Educational Institutions (HEIs) are expected to submit a list of faculty and teachers on IRINS. IRINS then fetches the publications and citation details of each faculty of a given HEI from international research database like SCOPUS, Thomson Reuters, etc and prepares a profile of each faculty which is then aggregated to create a profile of the HEI.

3. In order that there is a comprehensive database of distinguished teachers, it is imperative that all the faculties of HEIs are made to put their academic details including achievements on the VIDWAN portal/ IRINS. Therefore, UGC may impress upon Universities to get their institutions/ faculty details onto IRINS/ VIDWAN portal of INFLIBNET.

4. Further, in order that faculty have an incentive to get themselves a VIDWAN id, UGC may like to issue a directive that only such faculty who are registered in VIDWAN portal and only such HEIs who are registered on IRINS will be considered for funding by UGC/MoE.

5. Similarly, for the post of VC, it can be made mandatory that the faculty has to necessarily indicate his/her VIDWAN id in the application form.

This issues with the approval of Secretary (HE).

*Substantive for next time*  
*Secy. 29/09/20*

Yours sincerely,

(Madhu Ranjan Kumar)  
Joint Secretary (Admin.)

Tel. 011-2338 3451

Copy to:

*JS (IISER) & JS (MRBC)*  
*30/09/20*

1. Dr. Chandra Shekhar Kumar, Joint Secretary (IISER)

With the request that in the institutions under them, the provisions in para 4 may be suitably communicated.

अमित खरे, भा.प्र.से.

सचिव

AM.T KHARE, IAS  
Secretary

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शिक्षा मंत्रालय  
Ministry of Education  
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127 'C' Wing, Shastri Bhawan, New Delhi-110 001  
DO. No. 10-1/2020 - TS.IV  
8<sup>th</sup> September, 2020

CM SECRETARIATE

DT NO. 44968  
DATE 16/9/2020

Dear Prof. D. P. Singh,

**Subject: Development of guidelines for induction and mentorship of teachers in non-technical institutions - reg.**

As you are aware, NEP has recommended that faculty in HEIs should be mentored by distinguished working and retired faculty. Perhaps it will go a long way in initiating a new faculty into the world of academics.

For newly inducted teachers in technical institutions, AICTE has started a programme called National Initiative for Technical Teachers Training (NITTT) which is targetted towards teachers with less than five years of experience. It is administered by the four National Institute of Technical Teachers Training (NITTTs) located at Chandigarh, Kolkata, Bhopal and Chennai. Its details are available at <https://aicte-india.org/schemes/staff-development-schemes>.

It will be appreciated if UGC can also formulate similar national initiative for induction and mentorship of teachers in the non-technical stream (NIIMT). I am attaching a brief write up about a possible way it can be achieved using the digital infrastructure of INFLIBNET and the online generic eight module material prepared by NITTTs. Needless to say, UGC is free to suitably develop its own model for NIIMT.

To begin with, we are proposing to launch NIIMT under the aegis of NITTT from the 2<sup>nd</sup> semester of 20-21 in an online mode within the framework of NITTT. It is hoped that by then UGC will be able to chalk out its own guidelines which can then be implemented for subsequent batches.

*Important / Top priority  
for needful plz*  
With regards,

*Secretary*  
09/09/20

Yours sincerely,

*Amit Khare*  
8.9.2020  
(Amit Khare)

Prof. D. P. Singh,  
Chairman,  
University Grants Commission,  
Bahadur Shah Zafar Marg,  
New Delhi - 110002

*JS (DEB)*

*JS (HRDC)*

*- JS (CIP-IV)*

These three domains pretty much cover the initial requirement of a newly inducted teacher. While undergoing the above training the inductee teachers can identify a mentor who will guide the inductee teachers. For this, the inductee teachers can use the VIDWAN portal to pick up a mentor. During the initial phase (till a databased system is made available by INFLIBNET), NITTTRs can be asked to pick up say 50 distinguished faculty (both working and retired) who are willing to play the role of mentor.

**The role of the Mentor** can be some/all of the following :-

- a) The mentor will guide the inductee teacher to practice communication skills (oral and written) by preparing and presenting a paper on a subject chosen.
- b) The mentor will guide the inductee teacher to prepare funding proposal for a research project which can be submitted to a funding agency.
- c) For subjects where lab work is involved, the mentor can explain the working of laboratory equipment, process of conduct of laboratory experiments, laboratory class handling and student assessment method and also help develop new experiments.
- d) The mentor may submit his/her assessment of the inductee teacher to the head of the Institute.

Faculty can In order to institutionalise a formal system, it is suggested that the VIDWAN portal of INFLIBNET can be modified to ask Professors who are willing to be mentors of the new faculty. To begin with, Directors of 4 NITTTRs can be authorised to identify 50 distinguished faculty (serving & retired) in different non-technical domain i.e., in the fields of humanity and science, who can provide mentorship to not more than 6 newly inductee teachers at a time. As VIDWAN portal becomes more populated and robust, the mentors can be picked up from there.

**III. Incentive structure for mentors and mentee** - Since mentorship needs a steady pool of high quality faculty willing to be mentors, in order that there is positive incentive for faculty to enroll on IRINS/ VIDWAN portal, MoE/ UGC/ AICTE can issue a directive that only such faculty who are registered in VIDWAN portal will be considered for the funding by these bodies or for the posts of Directors /VCs in the Institutions under MoE. Having a single database of university teachers will also have many co-related downstream advantages.

At this stage, it is desirable that the incentive structure is kept at non-financial for mentor. Hence, it is suggested that for serving teachers who are willing to be a mentors for 6 faculty can be given API score of 30. UGC may like to modify it suitably.

For mentee, it is noted that AICTE has made clearing of 8 modules of NITTT and also working under mentorship of a seior faculty a necessary consition for promotion. UGC may like to adopt, moderate or modify ot suitably for on faulcty from non techical institutions.

\*\*\*\*





ज्ञान-विज्ञान विमुक्तये

प्रो. रजनीश जैन  
सचिव

Prof. Rajnish Jain  
Secretary



सत्यमेव जयते

विश्वविद्यालय अनुदान आयोग  
**University Grants Commission**

(शिक्षा मंत्रालय, भारत सरकार)  
(Ministry of Education, Govt. of India)

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D.O.No.25-5/2011(IUC)

5<sup>th</sup> November, 2020

**Subject: Registration of HEIs on VIDWAN Portal / IRINS of INFLIBNET**

Dear Madam / Sir,

As you are aware, one of the recommendations of National Education Policy (NEP) is to develop a system of mentorship by distinguished and retired faculty. The Ministry of Education has conveyed vide a communication, dated 23<sup>rd</sup> September, 2020 that in order to have a comprehensive database of distinguished teachers, all the Higher Education Institutions (HEIs) and their faculties need to register on VIDWAN portal and Indian Research Information Network System (IRINS), both maintained by Information and Library Network Centre (INFLIBNET), an Inter University Centre of UGC. Only those institutions which are registered on IRINS and only such faculty who are registered on VIDWAN portal will be considered for funding by UGC / Ministry of Education.

In view of the above, all Higher Education Institutions and faculty are requested to register on VIDWAN portal and IRINS of INFLIBNET at the earliest.

With kind regards,

Yours sincerely,

(Rajnish Jain)

To:

The Vice-Chancellors of all Universities & Principals of all colleges