AICTE Leadership in Teaching Excellence (LITE) Curriculum Handbook

Minor Degree in Advanced Web Development

pupilfirst

Preface

Dear Faculty,

This handbook is an outline of the approach to implementing the 20 credits Minor in Web Development Curriculum that is approved by All India Council for Technical Education (AICTE) under the National Educational Alliance for Technology (NEAT) programme of the Ministry of Education, Government of India.

This document is divided into two chapters

Chapter 1. Key Approaches from NEP 2020 that are covered in LITE

Chapter 2. Role of an Educator in Learner Centered Pedagogy

Select faculty shall be professionally trained by industry coaches in technology tools, curriculum and continuous assessments methods that shall empower them with necessary skills and knowledge required to implement the program through a learner-centered-pedagogy.

Inputs from trained faculty would be taken to create the teaching-learning process and measured output from each batch such that a process of excellence is created at the institutes covering steps of faculty selection and training, student awareness, student selection, diagnostic assessments, formative assessments, summative assessments, identifying teaching assistants, guiding course graduation(Internship/Entrepreneurship) and feedback for improvements of the above steps.

This document shall also serve as a base document for discussion between key stakeholders on how to work together to achieve the goals laid out in the National Educational Policy 2020 in a holistic and planned manner.

Salient Policy Goals of NEP 2020 Implemented in LITE

This chapter covers an overview of 10 salient goals of NEP 2020 that are being covered through the LITE programme.

SI	NEP 2020 Goal	Implementation in LITE
1	Training teachers in learner-centred pedagogy and using online teaching platforms and tools **(NEP 24.g)**	Students in this programme would be learning in a learner-centered model. Faculty would receive continuous support from professional industry experts to learn and deploy learner centered pedagogy
2	For achievement of learning outcomes, classroom transactions shall shift towards competency-based learning **(NEP 4.6)**	With real world competencies mapped into the curriculum, faculty would be able to work with industry experts and upskill their knowledge to be in sync with latest industry standards and techniques.

SI	NEP 2020 Goal	Implementation in LITE
3	Training teachers in latest pedagogies for formative and adaptive assessments and implementing pedagogical plans based on competency based education. **(NEP 5.15)**	Faculty shall be equipped to perform diagnostic, formative and summative assessments using technology tools. This shall enable faculty to see the overall course progression of the class and spend more time on weaker students such that nearly all students in the class are able to achieve the course learning outcomes.
4	University Admissions for students with singular interest **(NEP 4.45)**	AICTE shall select CBSE schools into the LITE program. University faculty shall be connected with school teachers to identify gifted students who can have a direct admission to university programmes.
5	Continuous Professional Development of Faculty **(NEP 5.15)**	From the regular 5 day FDP programmes, AICTE, LITE has a continuous model of faculty development with professional support from industry all round the year.

SI	NEP 2020 Goal	Implementation in LITE
6	Focus on greater industry partnerships and innovation amongst student communities **(NEP 11.2)**	With deep industry integration through NEAT, faculty shall be able to guide students towards applying knowledge to practical use cases like an industry setting.
7	Creating Optimal Learning Environments for high quality learning outcomes **(NEP 12.1)**	Faculty shall receive support to set up learning environments right from creating awareness, student selection, diagnostic assessments, formative assessments, summative assessments, identifying teaching assistants, guiding course graduation(Internship/ Entrepreneurship) and feedback for improvements of the above steps.
8	Classrooms shall have access to the latest educational technology that enables better learning outcomes. **(NEP 13.2)**	AICTE has selected the open-source tooling built by pupilfirst.org after careful multi-step selection process and demonstrating proven learning outcomes for students. Faculty shall have the ability to learn about the tooling in depth and enhance student experience through more inputs.

SI	NEP 2020 Goal	Implementation in LITE
9	Research in Educational Technology for improving teaching-learning-evaluation process and increasing access to education **(NEP 23.1)**	Institutions and Faculty who are part of LITE after training shall form part of a Industry-Academia Research Group to identify new areas of research and themes to be submitted to AICTE for support.
10	Creating pilot studies for digital education, training teachers to be effective online educators and creating tools for blended models of learning **(NEP 24.1, 24.3, 24.4)**	AICTE has designed the LITE programme to start with 50 institutions and faculty who shall demonstrate a new model of teaching-learning to the other 10,000 affiliated institutions.

Role of an Educator and Teaching Pedagogy

In the 21st century knowledge economy, the role of a faculty in a technology-enabled teaching learning environment has slowly transformed from theory lecturers to that of an active educator and facilitator for students to learn how to learn on their own. Faculty shall help shape and smoothen the learning curve of students.

This chapter will talk about key responsibilities of educators and suggest the pedagogical approach that can be followed for better learning outcomes for students.

Role of an Educator

From teaching to facilitating (experts take care of dynamic curriculums, teachers assists in the learning process)

1. Preparing the mindset of students

2. Preparatory Groundwork according to needs and understanding level of students

3. Facilitating throughout the curriculum

4. Professional self-development

5. Mentoring and Guidance

Teaching Pedagogy

1. Discovery, discussion and Analysis based learning
   (Taking inspiration, thinking alone and thinking together)

2. Peer assisted learning (Critical thinking)

3. Classroom as place to play, experiment, and reflect
   (Creating and Sharing)

OpenSource tools for the Educator

The Web Development courses are hosted online in the open-source teaching-learning platform, Pupilfirst LMS which is developed keeping all learners of the classroom in mind and by taking the feedback from teachers and students from universities into consideration. The tool supports quality teaching and learning via many inbuilt processes. A few of them are listed below -

– **Community** - This is a place where Students, Teachers, Coaches, Teaching Assistants, Student-graduates (from previous batches) come together to build a developer ecosystem that supports peer-learning. This acts as a repository of questions/discussions from previous batches of students, that help a new student clarify their doubts with ease.

– **AMA Sessions** - Ask Me Anything sessions are conducted wherein the students get to interact with experts from Industry and learn from them. All session recordings (and related resources such as demo projects) can be accessed easily on the platform.

– **Dynamic Content** - The course content the platform is written by Industry experts gets revised very frequently based on feedback from students on concepts/topics and updates in technology so that it is always of high relevance and quality.

- **Review Checklist** - Giving an elaborate, qualitative feedback to students is very important in their learning. The platform supports creation of custom quality templates of review feedback by the Coach, based on the quality and features implemented by a student in the submission, that can be re-used by the educator to give high-quality templated feedback to the students.