

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

**F.No.AICTE/SDC/22-23 AEDP-TI
24**

24-04-

Sub: Guidelines on Apprenticeship Embedded Degree/ Diploma Programme for Technical education (AEDP-TI).

Sir/Madam,

The Ministry of Education constituted a committee for framing guidelines on “Apprenticeship Embedded Degree/ Diploma Programme for Technical Education” vide letter F.No. 16-3/2020-TS.VII dated 06 June 2023. After various meetings of the committee and incorporating suggestions from the committee members, the final Draft Guidelines on Apprenticeship Embedded Degree/Diploma Programme (AEDP) for Technical Education are framed and attached herewith.

All stakeholders are requested to review the guidelines and provide their comments/suggestions in the google form attached herewith.

Google link is as follows:

<https://forms.gle/xp3bxbbl1yzLQf9eA>

(AICTE)



सत्यमेव जयते

Ministry of Education **All India Council for Technical Education**
Government of India



Apprenticeship Embedded Degree/Diploma Programme (AEDP) for Technical Education

According to a survey by NASSCOM in 2019, India produces 15 lakh engineering graduates every year, but only 2.5 lakh of them succeed in getting jobs in the core engineering industry. In another survey by Aspiring Minds, 80 percent of Indian engineers were unemployed in 2019.

The major reason for employability challenges is that many graduates are not skilled enough to work in the engineering sector after completing their graduation.

Due to insufficient practical knowledge and industry exposure, fresh graduates have no other option than working in non-technical fields.

On the other hand, 92% of Indian universities believe that degree apprenticeship yields better results and is more beneficial for the students as compared to regular degrees in order to meet the demands of the 21st century workplace (Future of Apprenticeship in India report by TeamLease EDTECH, March 2022). To make students industry-ready, degree apprenticeships combine learning and on-the-job training, with the potential to earn while one learns. As per the evaluation studies conducted by NITI Aayog also, 79% of the apprentices got employment after the successful completion of one year of apprenticeship training.

The benefit of such a programme to the industry, students and institutions are:

Benefits to industry	Benefits to students	Benefits to institutions
<ul style="list-style-type: none"> • Availability of ready to contribute candidates for employment • Perennial supply of highly motivated pre-professionals • Students bring new perspectives to problem solving • Visibility of the organization is increased on campus • Quality candidate's availability for 	<ul style="list-style-type: none"> • An opportunity to get hired by the industry/organization • Practical experience in an organizational setting • Excellent opportunity to see how the theoretical aspects learned into the practical world • Helps them decide if the industry and the profession is the best career option to pursue 	<ul style="list-style-type: none"> • Build relations with industry • Makes the placement process easier • Improve institutional credibility and branding • Helps in retention of the students • Curriculum revision can be made based on feedback from industry/students

<p>temporary or seasonal positions and projects</p> <ul style="list-style-type: none"> • Freedom for industrial staff to pursue more creative projects • Availability of flexible, cost-effective work force not requiring a long-term employer commitment • Proven, cost-effective way to recruit and evaluate potential employees • Enhancement of employer's image in the community by contributing to the educational enterprise 	<ul style="list-style-type: none"> • Opportunity to learn new skills and supplement knowledge • Opportunity to practice communication and teamwork skills • Opportunity to learn strategies like time management, multi-tasking etc. in an industrial setup • Opportunity to meet new people and learn networking skills • Makes a valuable addition to their resume • Enhances their candidacy for higher education • Creating network and social circle and developing relationships with industry people • Provides opportunity to evaluate the organization before committing to a full-time position 	<ul style="list-style-type: none"> • Improvement in teaching/learning process
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Table 1: Benefits of Apprenticeship Embedded Degree/Diploma Programmes

Till 2019, there was no provision for extending extending benefits of apprenticeship training to the technical students pursuing degree/diploma. However, due to certain amendments to the Apprenticeship Rules in 2019, 'Degree Apprentice' was introduced as "an apprentice undergoing a course in order that he may hold a degree granted by any recognized institution or university and undergoing apprenticeship training as an integrated component of the curricula".

In the year 2020, The National Education Policy 2020 suggested that different models of vocational education, and apprenticeships will be experimented by higher education institutions to promote vocational Education.

National Credit Frame work provided the scope of creditisation for Apprenticeships as "the total learning hours under apprenticeship can be creditised, subject to assessment/ evaluation of the same. NCrF also recommended that Academic Bank of Credit (ABC) shall also be expanded for credits earned through apprenticeships, internships, project work etc.

Thereafter, Apprenticeship Embedded Degree/Diploma Programme was announced in Union Budget 2020-21 to improve employability of students. Accordingly, AICTE has communicated to its approved institutions regarding introduction of Apprentice Embedded Degree/Diploma Programme for technical students.

Further, Ministry of Skill Development and Entrepreneurship, Economic and Policy wing constituted a committee to examine various issues related to Skill University OM dated F.No. MSDE (DGT)-19/9/) 2022 and task related to Formulation and Notification of Comprehensive Guidelines for Degree Apprenticeship was handed over to the committee.

Now, Ministry of Education has constituted a committee for framing guidelines on Apprenticeship Embedded Degree Programme for Technical education vide F.No. 16-3/2020-TS.VII dated 06 June 2023 CopY attached). The constitution of Committee is as follows:

Sr. No.	Name, Designation & Other Details of the Experts	Remarks
01	Prof. T.G. Sitharam Chairman, AICTE	Chairman
02	Prof. Prem Kumar Kalra Director, Dayalbagh Educational Institute, Agra, UP	Member
03	Dr. Manju Singh Joint Secretary, UGC	Member
04	Representative, NCVET	Member
05	CEO, IT-ITes Sector Skill Council	Member
06	Prof. Rakesh Sharma Ex. Vice Chancellor, Graphic Era, Dehradun, Uttrakhand	Member
07	Dr. Neetu Bhagat Dy. Director, AICTE	Convener

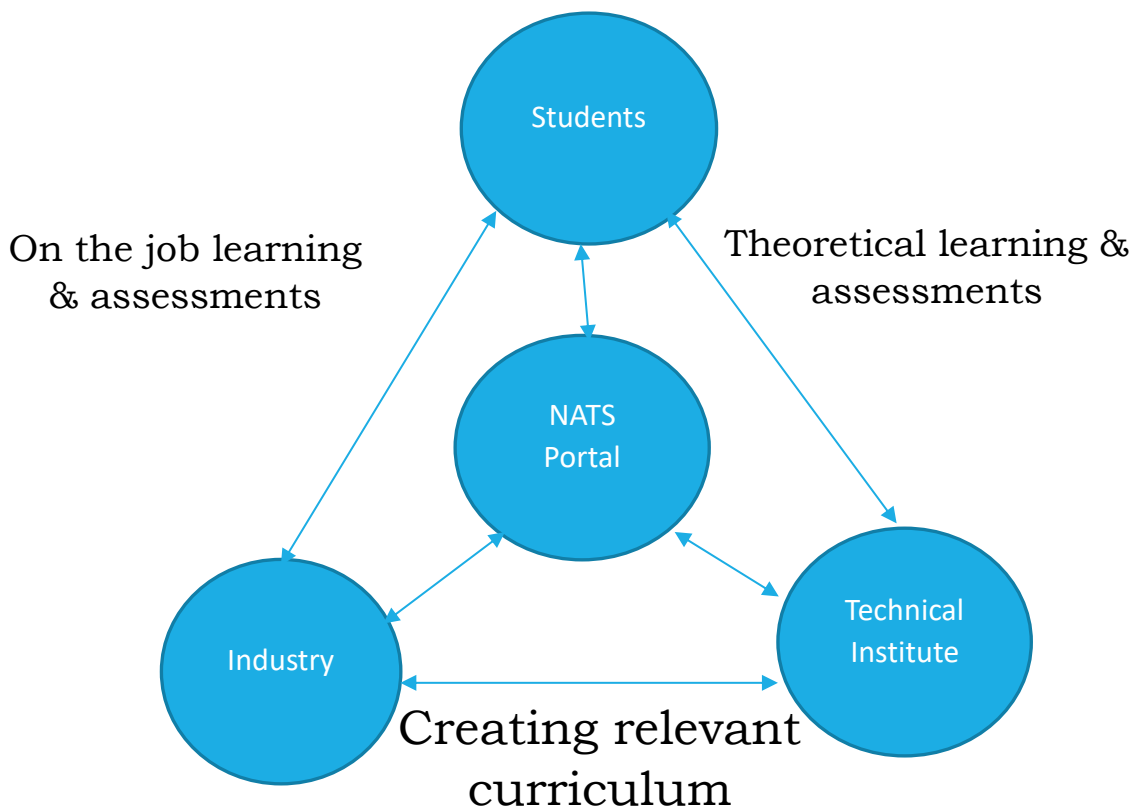
After various meetings of the committee and incorporating suggestions from the committee members, the final Draft Guidelines on Apprenticeship Embedded Degree/Diploma Programme (AEDP) for Technical Education are as follows:

Draft Guidelines of Apprenticeship Embedded Degree/Diploma Programme (AEDP) for Technical Education

I. Objectives:

- To enhance the employability avenues of the technical student through work integrated technical degree/ diploma programme.
- To bridge the skill gap in the industry through their active participation in creating and executing AEDP in partnership with institutes and BOATs/ BOPT.

II. Execution Model



III. Guidelines for AEDP

A. General

- All Degree/ Diploma programmes approved by AICTE are eligible for embedded apprenticeship.
- An apprenticeship embedded Degree/ Diploma programme shall be treated at par with the regular Degree/Diploma programmes for all purposes including further education and recruitments.
- The AICTE approved institutions including university affiliated institutions and deemed universities would implement the AEDP in a way consistent with these guidelines in consultation with industry/establishment/industry associations.
- The apprenticeship training as approved by the industry/establishment shall be undertaken at the workplace (real or

virtual) /office/establishment premises for imparting On-the-Job-Training (OJT) to the apprentices in the identified discipline/trade.

- The AICTE approved institutions shall have a formal arrangement/agreement with discipline specific commercial and non-commercial organizations or enterprises, offices, industry etc. for providing OJT under AEDP. In case multiple establishments are involved, then separate arrangements/agreements may be made.
- The AICTE approved institutions may plan the number of seats for apprenticeship training as per the formal arrangement between the industry/establishment and the institute within the approved intake granted by AICTE.
- The courses will not require any separate nomenclature. However, the mark sheets should mention the credits earned during apprenticeship training.
- The institutions may convert their already approved courses into the embedded degree/diploma programme and take admissions according to the intake approved by AICTE.
- Provision for Multiple Entry- Multiple Exit may also be created by the institution based on NCrf.

B. Payment of Stipend

- Minimum Prescribed stipend of Rs. 7000/- per month for Diploma students and Rs. 8000/- per month for Degree students or as approved by the Govt. of India from time to time with the approval of AICTE or not shall be paid with half of it being contributed by the Government of India subject to a matching contribution by the industry/establishment. Stipend will be paid for a maximum duration of 12 months as per Apprenticeship Act, 1961.
- However, academic institutions/establishments would have the flexibility to run this programme in non-government funded mode as well wherein the Government and the establishment/industry shall not be bound to pay any stipend to the student.

C. Duration of the Programme

- Any degree/ diploma programme will have an option to embed at least 1 semester of apprenticeship as part of the degree/diploma programme without altering the total duration of the programme. In any case, the maximum duration of the apprenticeship shall be as per the decision taken by the Institute /University subject of a maximum of 3 semester for UG and maximum 2 semester for Diploma.
- The spells of apprenticeship shall be scheduled either continuously or at intervals depending upon the requirement and practicality of the discipline concerned. However, no spell shall be less than **6 months** or more than 12 months in any instance.

- For a Diploma programme, the apprenticeship should preferably be taken up after the completion of II semester and for a Degree programme, after the completion of III semester.

D. Credit Mechanism

- The total credits assigned to a particular degree/diploma programme shall continue to follow the AICTE Model Curriculum for degree/diploma programme or the Curriculum already approved by the Regulatory University for regular Degree/ Diploma Programmes.
- As per National Credit Framework, 30 hrs. Training will correspond to 1 Credit (1200 Hrs.) /apprenticeship training would correspond to a minimum of 40 credits. Similarly, a 6 month/(600 Hrs.) apprenticeship shall correspond to 20 credits.

IV. Preparation of Apprenticeship/plan

An apprenticeship plan has to be developed by the industry/establishment in collaboration with the concerned institute. BoATs/BoPT may also be involved in the development of the plan for on boarding on NATS portal. The apprenticeship plan should incorporate the following:

- Job description
- Name of the project, if any.
- Apprenticeship schedule and expected learning outcomes

V. Monitoring and Evaluation of Apprenticeship

Evaluation and assessment of apprentices shall be done, provided the candidates concerned have maintained a satisfactory level of attendance during the apprenticeship period. The minimum attendance of the apprenticeship in the industry/establishment shall be prescribed by the HEI concerned. The training of the students/apprentices will be evaluated in three stages:

- A.** Evaluation by industry (Optional)
- B.** Evaluation by faculty mentor on the basis of site visit(s) (Optional)
- C.** Evaluation through seminar presentation/Viva-Voce at the institute

The marks provided by the industry and the institute shall be averaged to decide the final grade of the student.

A. Evaluation by industry

The industry shall assess the candidates based on the following parameters – attendance, discipline and punctuality, familiarity of tools and material, engineering skills, application of knowledge and problem-solving skills, comprehension and observation, professional ethics, safety and environmental consciousness, communication skills, supervisory skills and general conduct during the period.

B. Evaluation by faculty mentor

The institute will depute one faculty member for mentoring at least 20-30 students undertaking apprenticeship training. Such mentors will monitor, guide and provide counselling to the students as and when required. Faculty mentor of the institute(s) may make a surprise visit to the internship/apprenticeship site to check the student's presence physically.

C. Evaluation through seminar presentation/Viva-Voce at the institute

The student will give a seminar based on his training report, before an expert committee constituted by the concerned department as per norms of the institute. The evaluation will be based on the following criteria:

- Quality of content presented
- Proper planning for presentation
- Effectiveness of presentation
- Depth of knowledge and skills
- Attendance record, daily diary, departmental reports shall also be analysed along with the Internship Report

VI. Roles of stakeholders in implementation of the AEDP

A. BOATs/ BOPT

- To be the focal point in driving the tripartite arrangement
- To enable ties between institute and industry
- To ensure adherence to the guidelines related to stipend, training, and other mandated compliances

B. Institute

- Signing of MoU/Agreement/Letter of Confirmation with the industry/establishment
- Creating the curriculum along with industry
- Execution of theoretical learning
- Assessment
- Awarding qualification
- Credit storage

C. Industry

- Signing of MoU/Agreement/Letter of Confirmation with the institute(s)
- Onboarding the student trainee
- Creating curriculum/synopsis/written plan of apprenticeship along with the institute(s)
- Execution/assessment of OJT learning

- Adherence to the guidelines under the AEDP related to stipend, training and social welfare

D. Student

- To undergo OJT and theoretical learning as per the curriculum
- To take up required assessment
- To maintain decorum and discipline during the training as per industry/establishment norms.

VII. Post Training Tracking

Academic institutions are expected to track the outcomes of the pass-outs from such programmes for a period of at least 1 year after the completion of the programme to assess the employment and education pathways pursued by such candidates and contribute to further development of OJT-embedded programs. Such tracking data would be facilitated and updated on the NATS Portal.

VIII. Tripartite Agreement

- To enter a Degree/Diploma Apprenticeship engagement, it shall be mandatory to have a tripartite arrangement/agreement between the recognized academic institution, establishment, and the apprentice/student.
- The contract shall clearly specify the roles and responsibilities of all the three parties to the contract.

Roles and responsibilities of stakeholders in a Tripartite Agreement are as follows:

An arrangement/agreement contract of apprenticeship as prescribed shall be entered between the student/apprentice, the institute and the industry/ establishment, which shall be forwarded by the industry/establishment to the Director of the Regional Board of Apprenticeship Training concerned for approval.

The contract of apprenticeship shall terminate on the expiry of the period of apprenticeship training.

A. Employer/ Establishment

- The responsibilities of the employer/establishment w.r.t. health and safety; compensation for injury; and hours of work, leave and holidays; shall be as per the provisions of the 'Apprentices Act, 1961' and 'Apprenticeship Rules,1992'.
- To provide the Apprentice with the training as per the approved program in accordance with the contract and within the overall provisions of the Act.
- To pay stipend as prescribed by the Government usually on completion of every month, latest by 10th of the following month.

- **Records of Training:** Every employer shall maintain records of the progress of training and assessments undertaken of each apprentice undergoing apprenticeship training in his establishment in such form as required under the course curriculum and as may be prescribed under the Act.
- **Health and Safety:** The provisions of Chapters III, IV and V of the Factories Act, 1948, shall apply in relation to the health, safety and welfare of the apprentices as if they were workers within the meaning of that Act and when any apprentices are undergoing training in a mine, that provisions of Chapter V of the Mines Act, 1952, shall apply in relation to the health and safety of the apprentices as if they were persons employed in the mine.
- **Hours of Work, Leave, Holidays:** The weekly and daily hours of work of an Apprentice while undergoing practical training in a workplace shall be as determined by the employer subject to the compliance with the training duration, if prescribed.
- **Compensation for Injury:** If personal injury is caused to an Apprentice, by accident arising out of and during his training as an Apprentice, his employer shall be liable to pay compensation which shall be determined and paid, so far as may be, in accordance with the provisions of the Employees' Compensation Act, 1923, subject to the modifications specified in the Schedule
- **Employer to permit apprentices to attend scheduled academic sessions** in between the training period either at the OJT premises or at the institute campus as the case may be.

B. Apprentices

- **Conduct and Discipline:** The apprentice shall be governed by the rules and regulations [applicable to employees of the corresponding category] in the establishment in which the apprentice is undergoing training.

C. Academic Institution

- To deliver the course as per the approved course curriculum including the management of the apprenticeship component undertaken in partnership with the industry partner/employer.
- The academic institution shall be responsible to amend its byelaws if required for offering AEDP.
- Mapping and reporting apprenticeship contracts and related compliance on the portal would lie with the academic institution or any Third-Party Aggregator (TPA) working on its behalf.
- The academic institution shall have the flexibility to structure the assessment of the apprenticeship component in partnership with the employer in terms of one final end-term assessment or periodic assessments at the enterprise through employer/academic institution assessors.

- Academic institutions shall ensure availability of relevant infrastructure and faculty with requisite industry experience for delivery of Apprenticeship embedded programme.