

## **National Initiative on Skill Integrated Higher Education (NISHE)**

### **Implementation of Apprenticeship Embedded Degree Programs (AEDPs) in Karnataka from AY 2024-25**

#### **1. Introduction**

**1.1** India has been witnessing a rapid economic growth in a multi-sectoral pattern across industry and service sectors. While the growth has multiplied and diversified exponentially, it is the employment aspect that has not kept pace with the growth momentum. Employment is the significant outcome for the bulk of the college-going youth. However, the critical component of employability determines employment prospectus and this is an area of concern, more so for the 43,000 Conventional Degree Colleges in the country and within them, the Government Degree Colleges (GDCs).

**1.2** The main reason why 55 lakh students out of the annual 1 lakh non-professional degree pass outs in India remain unemployed & unemployable is that industry-demanded skill-sets are not embedded in the college curricula. There is a dire need to transform the curricula of B.A., B.Sc. and B.Com. through the introduction of new and industry-aligned courses with hands-on work exposure integrated into the curriculum. This work exposure should be in the form of apprenticeship during the period of learning. A transformatory approach of this nature would equip students with professional abilities and make them industry-ready.

**1.3 Past efforts** have been undertaken in the states of Telangana, Andhra Pradesh, Uttar Pradesh and Himachal Pradesh, and as of now more than 50 colleges mentored by the [Centre for Research in Schemes and Policies \(CRISP\)](#) are implementing Apprenticeship Embedded Degree Programmes (AEDPs). The Logistics, Retail, and Tourism & Hospitality [Sector Skill Councils \(SSCs\)](#) are additionally implementing such programmes in a combined set of about 100 more colleges. Apprenticeship linkage has been successful in all colleges. **In Karnataka, two Universities are already implementing AEDPs viz., Karnataka University, Dharwad and Maharani University, which are offering BBA (Logistics) from the last academic year. The Logistics SSC has been instrumental in providing the entire chain of support i.e., curriculum, teachers' training and apprenticeship linkage.**

## **2. Approach in Karnataka**

**2.1** Karnataka is a developed state and stands out as a major hub in various sectors like Information Technology, Pharma, Electronics, Hospitality, Healthcare, Logistics, etc. The premium engineering & management graduates find employment from the 6,100 colleges in the state. However, students of non-professional degree colleges, mostly from the 430 (approximate) GDSCS in the state face the problem of absence of employability. It is in the non-professional degree colleges that the process of curriculum changes and skill-embedded education needs to be introduced. Such students have to be provided hands-on work experience during their degree course in the form of apprenticeships.

**2.2** Karnataka has been on a huge industrial & service sector growth path which will be an opportunity in terms of generation of skilled manpower for the same. Hence, as a policy & implementation objective, about 60 colleges in the state with a rational district-wise spread can be identified as a pilot for a cohesive effort where every identified college offers skill-embedded degree programs. The courses would be degree courses integrated with industry demanded skills woven into the curriculum with apprenticeship/internship linkage as per the UGC stipulated credit structure and guidelines. Alignment of the colleges with industry would establish a relationship where dynamic changes in curriculum at pace with industry changes are affected, with the entire skilling component being imparted in accordance with the National Skill Qualification Framework (NSQF), regulated by the National Council for Vocational Education and Training (NCVET) under the umbrella of the Ministry of Skill Development and Entrepreneurship (MoSDE). For the education system in India, especially colleges, the most direct, sustainable and credible industry-connect will come from the SSCs, whose mandate is to provide skilled work force to the industry group they represent. Cutting edge training is facilitated by the SSCs through Qualification Packages (QPs) designed based on National Occupancy Standards (NOS). Although there is an SSC for every industry vertical in the country, in this exercise, we are considering 7-8 SSCs which are active in the college system.

**2.3** As per extant UGC guidelines and the flexibility provided therein, skill integration into education can take place through:

- (i) Full-fledged degree programs
- (ii) 35-40 credit elective courses
- (iii) 1-year diploma courses

Examples of full-fledged degree programs would be BBA (Logistics), BBA (Retail), B.Sc. (Life Sciences), BBA (Healthcare), B.Sc. (Tourism & Hospitality) etc. Industry Apprenticeship would be an integral part of such courses.

**2.4** 35-40 credit elective courses during second/third years in sectors like Green Jobs, Electronics, Media & Entertainment, Logistics, Agriculture etc., are also possible. On-the-Job Training (OJT) would be part of such courses.

### 3. Steps and Timelines

The State Government, State Higher Education Council, CCE, Universities and Colleges have to work in tandem with CRISP for the smooth launch of AEDPs in the state. The following timelines are desirable to be maintained:

S.No	Activity	Timeline	To be done by
1	Acceptance by State Government	29.02.2024	State Govt
2	Finalisation of budgets and signing of MoUs	15.03.2024	CRISP & State Govt
3	Meeting of Universities	31.03.2024	State Govt
4	Curriculum submission to Universities' for approval	01.04.2024	SSCs and CRISP
5	Selection of colleges by State Government	15.04.2024	State Govt
6	Approval by Universities BoS and Academic Council to selected colleges	01.06.2024	Universities
7	Training of Teachers	15.06.2024	SSCs/ CRISP
8	Issue of Prospectus for AEDPs	30.06.2024	Colleges
9	Admissions	15.08.2024	Colleges

### 4. NISHE: Proposed Numbers for 03 AYs

The following table highlights the proposed AEDPs spread that CRISP envisages over a three-year horizon, sector-wise and state-wise. The sector-wise college numbers proposed for Karnataka can be seen in the relevant row. The college numbers (with a class strength of 60 students each) have been projected after discussions with the SSCs on the estimated apprenticeship potential:

The table below displays the state-wise projected number of colleges and students for the next 03 academic years.

**NISHE: Proposed Year-wise Coverage of 10 States**

S.No	State	2024-25 Colleges	2024-25 Students	2025-26 Colleges	2025-26 Students	2026-27 Colleges	2026-27 Students	Total Colleges	Total Students
1	Maharashtra	78	4,680	110	6,600	125	7,500	313	18,780
2	Karnataka	60	3,600	84	5,040	96	5,760	239	14,340
3	Tamil Nadu	54	3,240	75	4,500	86	5,160	214	12,840
4	Uttar Pradesh	37	2,220	52	3,120	59	3,540	148	8,880
5	Telangana	30	1,800	41	2,460	47	2,820	118	7,080
6	Rajasthan	27	1,620	37	2,220	43	2,580	107	6,420
7	Madhya Pradesh	22	1,320	30	1,800	35	2,100	87	5,220
8	Andhra Pradesh	21	1,260	29	1,740	34	2,040	84	5,040
9	Odisha	16	960	22	1,320	25	1,500	62	3,720
10	Himachal Pradesh	15	900	21	1,260	24	1,440	61	3,660
<b>Total</b>		<b>358</b>	<b>21,480</b>	<b>502</b>	<b>30,120</b>	<b>573</b>	<b>34,380</b>	<b>1433</b>	<b>85,980</b>

The table below displays the sector-wise projected number of colleges for each state, to be implemented over the next three academic years.

**NISHE: SSC-wise break-up of 10 States**

State	IT& ITeS	BFSI	Logistics	Tourism & Hospitality	Health care	Retail	Life Sciences	Media & Entertainment	Fashion Design	Electronics	Capital Goods	State-wise Colleges Total
Maharashtra	100	40	30	30	25	20	20	20	15	10	3	313
Karnataka	40	20	30	25	30	30	20	20	15	6	3	239
Tamil Nadu	40	20	25	25	20	20	20	20	15	6	3	214
UP	25	30	20	20	15	20	5	5	2	5	1	148
Telangana	30	20	20	8	10	0	10	10	5	3	2	118
Rajasthan	20	15	10	25	10	10	5	5	5	1	1	107
MP	15	20	10	10	10	10	5	5	2	0	0	87
Andhra	20	10	10	7	10	10	10	5	2	0	0	84
Odisha	15	5	5	5	10	10	5	5	2	0	0	62
Himachal	10	5	5	20	5	5	5	5	1	0	0	61
<b>SSC-wise Colleges Total</b>	<b>315</b>	<b>185</b>	<b>165</b>	<b>175</b>	<b>145</b>	<b>135</b>	<b>105</b>	<b>100</b>	<b>64</b>	<b>31</b>	<b>13</b>	<b>1433</b>

**5. Roles of Different Stakeholders**

The exercise of introducing AEDPs in Karnataka’s colleges needs to commence from the academic year 2024-25 for the benefit of employability of students and enabling them to capture the job opportunities across the state and country. In this exercise, the roles of different entities are very clear and laid out as follows:

**Sector Skill Councils (SSCs)**

- i. The chief role of the SSCs is to bring industry standards into the skill component of the curricula, set occupational standards, provide course curriculum & Qualification Packages (QPs) for training, tie-up apprenticeship and carry out assessment & certification of

students. The presence of the top companies of that sector in the Governing Body of each SSC provides a direct industry connect which is leveraged and utilized for demand-based skilling, apprenticeship, and employment. They are regulated by MoSDE through the National Skill Development Corporation (NSDC).

- ii. SSCs will provide customization of the curriculum to evolve a basic degree or elective or diploma to cater to college-specific requirements.
- iii. All SSCs have the capacity for carrying out Training of Trainers (TOTs) or Teachers' Training which would be the first exercise in Karnataka after course choice by colleges and before launching the courses. The SSCs would help to select trainers or assign their training partners to a college only in case no suitable faculty is available for training. The fee chargeable by the SSCs for Training of Teachers is as per the prescribed common norms and is usually added to the annual fees of the student or met by the institution.

### **Colleges/Universities**

- i. The chosen colleges have the responsibility of providing classroom space for the new programs as well as Wi-Fi connectivity. Certain sectors would require a laboratory facility for which the colleges may have to carry out some site preparation & purchase equipment so that the SSC can function. This will be a cost to the College/University undertaking certain courses like Electronics, Capital Goods, Apparel, etc. They would also need to identify some of their own faculty for a Teachers' Training exercise. During the annual admission process, college principals would need to impart adequate publicity to the new skill-embedded courses on offer, highlighting their job relevance, apprenticeship & employment potential and prevent any awareness gap. SSCs will participate on their own whenever required by the State Government in awareness generation activities, so that students across the state are well informed about the prospects of various skill-embedded courses. This can be carried out during the pre-admission period leading to counselling and course choice.
- ii. College Principals would need to adopt a progressive and dynamic approach to the education system in their respective colleges and also motivate suitable faculty in their colleges to re-orient their minds & teaching methods to such skill-embedded courses which are very different from usual pedagogy. Principals must also be open to hiring contract faculty or trainers for the courses they may opt for in this sphere.
- iii. State Universities may provide authorization to the affiliated colleges for offering skill-embedded courses. These courses are in line with UGC guidelines. Such an authorization

by the Universities to their Colleges may be omnibus/generic and the colleges may not be required to seek approval of the University for every new course in future.

- iv. State Universities may dedicate some space and manpower for setting up Centers of Excellence/ Common Facilities in selected sectors and prepare themselves for functioning as a Hub and Spoke model for higher end skills in favour of their affiliated colleges. Several SSCs/Industry Partners are eager in this regard and quick, facilitating decision making may result in several such Centers across the education landscape of Karnataka.

This is a sustainable direction in which multi-sectoral, permanent industry-connect can be secured with minimal cost to the Government.

### **State Government of Karnataka**

- i. The State Higher Education Department/Higher Education Council may accord approval/direction to all State Universities to undertake AEDPs by themselves and their affiliated colleges. Autonomous Colleges would be free from such an approval. This may be essential in states where a State University may require government approval to authorize its affiliated colleges to undertake new skill-embedded courses.
- ii. The State Government has a very instrumental role to play in inviting high-CSR IT, Engineering and Service Sector Companies to adopt certain State Universities and Women's Colleges. Microsoft, Google, TCS, etc., can have focused interventions in certain educational institutions in providing labs, laptops, etc. CRISP opines that most Companies would participate in long-term curriculum provision and mentoring, provided the institutions come up with clear-cut proposals and have an interactive engagement. There are examples in other states where colleges have tied up with IT companies for a 3-year IT course where the Company provides the entire content and guaranteed placement. Such an effort can be initiated in Karnataka for about 10 colleges. Companies do respond positively to a government-led initiative.
- iii. The entire process of college-course mapping, earmarking classroom and lab facility, identification of teachers for training/hiring trainers, finalizing course content with the SSCs, MoUs with the SSCs and awareness generation before admission process must be completed before formal admissions start. To meet such timelines, it is essential that the State Government/Universities give the go ahead to the identified colleges quickly so that college-course mapping can be concluded as per timelines indicated in point number 3.

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