

Capacity Building for Design and Entrepreneurship (CBDE)

Program Briefing for HEIs Shortlisted after 4th Call for Proposals

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INDIAN INSTITUTE OF INFORMATION TECHNOLOGY,
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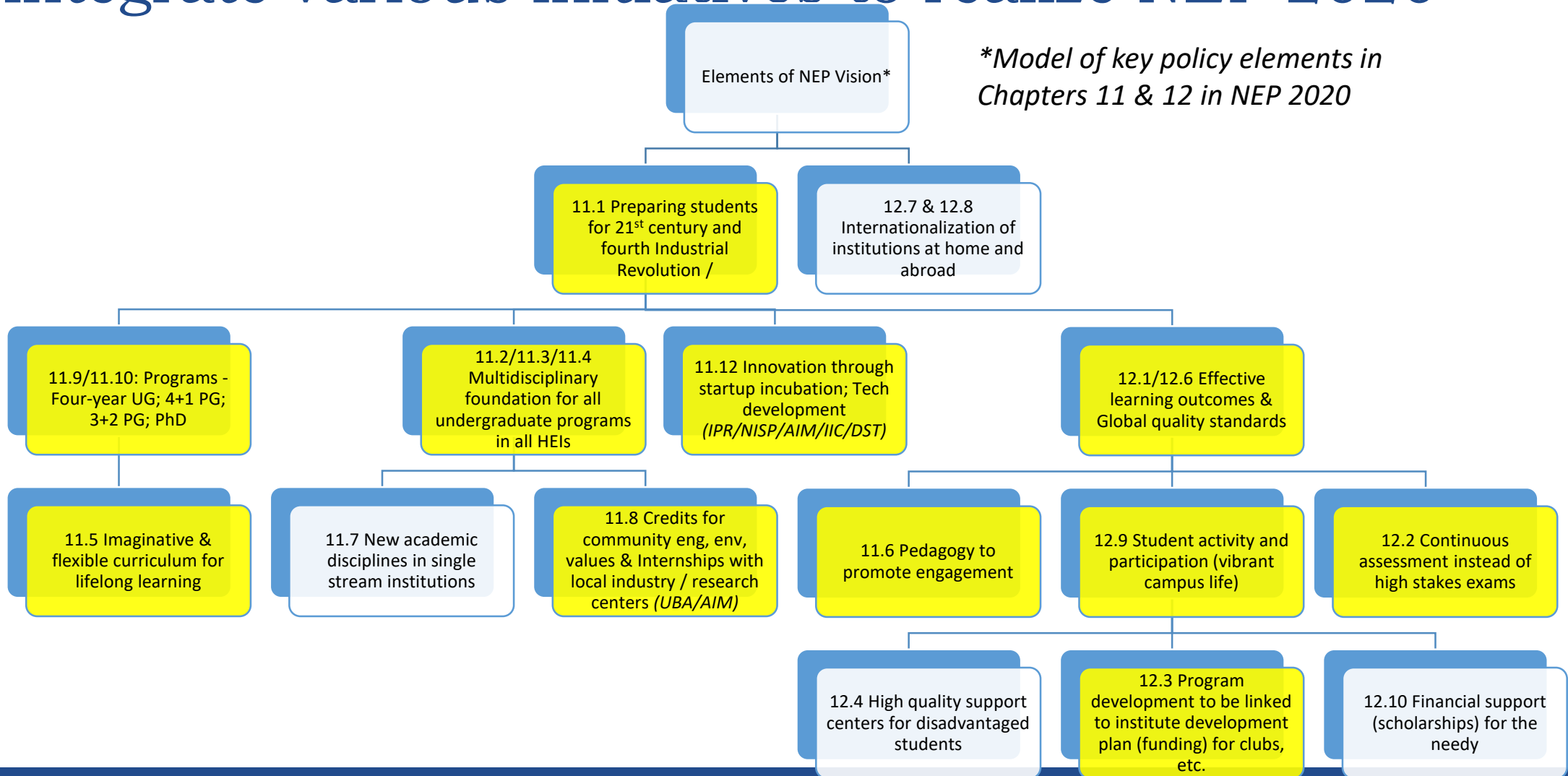
The intent of CBDE program is to

- Create conditions to cultivate behaviors such as tolerance for ambiguity, empathy, persistence, risk taking and IP creation, and do this over 3-4 semesters by
 - Creating space in the program, altering the pedagogy (not syllabus) in existing courses
 - Involving a greater proportion of students in their early years (from UG, PG and PhD)
 - Supporting student teams in their advanced years with interest in entrepreneurship
- Encourage a critical mass of faculty to collectively experiment and learn
 - With support from external mentors and practices in peer institutions and
 - Publish/Share their experience in enabling student transition, learning and innovation

The CBDE program is not intended to

- Force all students and faculty to become designers & entrepreneurs
- Introduce one design thinking/entrepreneurship course in curriculum
- Train all faculty to teach design and entrepreneurship courses
- Allocate courses / student assignments to external experts (mentors)
- Restrict to 1-2 non-core departments or incubation or training centre

CBDE program can help create capabilities to integrate various initiatives to realize NEP 2020



Suggested areas of improvement in HEI plans

Section 3.2	Guidelines for program goals
Specific goals to achieve over 3-5 years through this program	<u>Three-fold</u> increase in proportion of students taking entrepreneurship as a career - startup (co)founders (3-6%), with a good mix of UG/PG/PhD - IP creation (patents & designs) generated from student led innovation (10-15% of teams per year produce a patent or design; incl. PG/PhDs) - Improvement in internship and placement statistics for UG & PG 30% faculty developing practical experience in promoting design and entrepreneurship among students; 5% of faculty playing active role in nurturing student startups 20-30% common & core courses adopting pedagogy of learning by doing

Suggested areas of improvement in HEI plans

Section 4.1	Guidelines for selection of courses
Plan to integrate design and entrepreneurial orientation in the existing academic programs	- Creation of space in the curriculum 3 hrs per week 3 days in a semester for hackathons/workshops 3 weeks in year for field work - Identify a set of <u>common courses</u> to promote experiential learning, design and entrepreneurship orientation between semesters 1-4 for UG (Yr-1 and Yr-2), semesters 1-2 for PG & PhD (Yr-1); the courses must be vertically integrated across the semesters to cultivate desired behaviors; and have some degree of synergy with courses in a semester - List of <u>open elective courses</u> to support student teams in advanced years explore concept development, prototyping and entrepreneurship – semesters 5-8 for UG (Yr-3 & 4), semester 3-4 for PG (Yr-2), PhD (Yr-3 & 4)

Suggested areas of improvement in HEI plans

Section 4.2	Guidelines for faculty selection
• # of faculty onboarded into the program	1. 15% of total faculty in Yr-1, and 15% of faculty in Yr-2 for HEIs with > 3000 students on campus; 25% of total faculty in Yr-1 and Yr-2 for HEIs with < 3000 students on campus 2. Equal representation from the departments, and proportionate to the levels (Asst, Assoc, Prof) 3. Faculty responsibilities a) Participate in 1-1 mentoring sessions and conversations with expert mentors to enhance capacity for creative transformation b) Identify and co-mentor 5-10% of students in the 3rd/4th year UG or 2nd year PG or advanced years of PhD (max 15-20 promising student teams, average team size 4) c) Jointly handle courses in the common slot and facilitate learning-by-doing for 1st and 2nd year UG, 1st year PG and PhD d) Promote learning by doing in atleast one other course handled by the faculty

Suggested areas of improvement in HEI plans

Section 4.2	Guidelines for targeting students
• # of students targeted	1. # of departments involved (atleast 3) 2. # of entry level students targeted through common courses (UG Yr 1-2; PG Yr-1; PhD Yr-1) – approximately 50 students per faculty selected for the program 3. # of students in advanced years targeted through electives (UG Yr 3-4; PG Yr-2; PhD Yr 3-4) – approximately 3 students per faculty selected for the program (# of teams based on an average 4 students per team)

Suggested areas of improvement in HEI plans

Section 4.2	Guidelines for budgeting
Budget	- MoE support for mentor honorarium as per the budget approved by PAB: - Rs. 18,000 per mentor per day (facilitation for 8 faculty and 6-8 student teams) - Total for 120 days per year for 3 mentors: Rs. 21.6 lakhs per year for 2 yrs - Travel and guest house accommodation cost for mentors needs to be borne by the HEI (est. average travel cost per visit per mentor - Rs. 10,000; Total: Rs. 12 lakhs per year for 3 mentors for 40 visits each) - Events for 1st and 2nd year students (hackathons, workshops, consumables) - approx. Rs. 10 lakhs per year - Prototyping & field visit support for 5-10% of students in advanced years - Estimate: Rs. 30-40 K per team per year * # of teams - Estimate for 20 teams (avg team size:4): Rs. 6-8 lakhs per year

Sample Budget for a HEI with 2800 students

		Year-1	Year-2	Year-3	Year-4	Year-5
1	Total number of students (UG/ PG/ PhD)	2,800	2,940	3,087	3,241	3,403
2	Total number of faculty in the HEI	187	196	206	217	230
3	Number of departments participating in the program (at least 3 for multi-disciplinary HEIs)	6	6	6	6	6
4	Number of faculty co-opted into mentoring per year (approx. 25-30 as per concept note) 15 percent of total	28	29			
5	Number of mentors required (one mentor for 8-10 faculty as per the concept note)	3	3			
6	Total number of mentor-days planned	120	120			
7	Total number of students to be engaged in design & innovation activities by faculty per year per institute (UG-1&2 / PG-1&2 / PhD-first 2 yrs) (1400 students for 25-30 faculty as per the concept note)	1,400	1,470	1,544	1,621	1,702
8	Estimated number of student teams in advanced years with entrepreneurial potential to be mentored per year (avg team size of 4) – approx. 15-20 teams/60-80 students for 3 mentors as per concept note	18	19	20	21	22
9	Honorarium for mentors @ Rs. 18,000 per mentor per day (to be borne by MoE, and disbursed by nodal centre) (Rs. Lakhs)	21.6	21.6			
10	Total mentor travel and accommodation cost per year to be borne by HEI (Rs. Lakhs)	12	12			
11	Total financial support for targeted student teams per year by HEI (Rs. Lakhs)	7.2	7.6	8	8.4	8.8
12	Event & partnership mgt costs per year (liaising with industry & NGOs etc.) by HEI (Rs. Lakhs)	10	10.5	11	12	13
13	Contingency (5% of items 10-12) per year by HEI (Rs. Lakhs)	1.46	1.48	0.95	1.02	1.09
14	Total funding by the HEI per year excluding mentor honorarium (items 10-13) (Rs. Lakhs)	30.66	31.08	19.95	21.42	22.89

Suggested areas of improvement in HEI plans

Section 5.2	Guidelines for mentor selection
• Mentor selection	1. Shortlisting of mentors will be based 1. Doctoral/Post Graduate 2. Experience in Product Design/Entrepreneurship > 6 yrs 3. Time commitment (> 20 days) 2. HEIs will be required to select mentors from the pool 1. HEIs may choose a mix of technology, design, business experts, willing to commit 20-40 days per year, and proximity to institute 2. In case where more than one HEI chooses the same mentor, the mentor preference will be considered 3. Mentors expected to spend between 20-40 days a year 1. Ideally, mentors must visit the campus once a week, for max of 40 visits (where travel cost is around Rs 10,000 per visit) 2. In case of long-distance travel & accommodation cost is Rs. 20,000 per visit, mentors may adopt a hybrid mode and visit twice a month

Suggested areas of improvement in HEI plans

Section 5.1	Guidelines for program governance
PI/Co-PI and program governance	1. Create a governance model with institute director/Dean as the Chairman. Involve heads of the concerned departments. One meeting per semester to review progress of the program, faculty development and mentoring 2. PI/Co-PI must organize two meetings in a semester to take mentor, faculty and student feedback; Track outcomes at the end of every semester; Share experience within the institute and with peers 3. Pi/Co-PI may create a coordination team to ensure that mentor time is effectively utilized; and they are offered access, working space (meeting room with internet access) and hospitality during visits

Guideline for MoU

- Tripartite agreement between nodal agency (on behalf of MoE), HEI and mentors
- Commitments of HEI as per the CBDE concept note and guidelines given in this presentation

Timeline

- Finalize the program plan & budget : 16 Aug 2024
- Selection of mentors : 16 Aug 2024
- Signing of Agreement : 31 Aug 2024
- Preparatory sessions with mentors & PI/Co-PI: Sep 2024
- Preparatory sessions with selected faculty : Sep 2024