



**DCET – AREAS OF
EXCELLENCE**
Background Work Meeting

October 14, 2024

Agenda

- Introductions
- Brief Background
- Description of Pre-Work
- Path Forward

Introductions

- Welcome and short introduction of the Faculty members



BRIEF BACKGROUND

A brief presentation of the Strategy

Preamble

- ❖ Arun's donation energizes *key stakeholders* towards a common goal
- ❖ Goal – To help DCET in regaining its status as a premier institution in India
- ❖ Lofty goal – Chairperson bears disproportionate burden of responsibility
- ❖ Recent efforts by the faculty in DCET's accreditation (Dr. Toor, Dr. Sharma and others)

Introduction

DCET, as a department of the University faces various constraints:

- Insufficient funding from Central and State Governments even when it is @ 50% of staffing level
- Policies and procedural constraints for hiring, retaining, training, or incentivizing faculty members
- With doubling of student enrollment, Faculty/Student ratio is adversely impacted, threatening accreditation status and negatively impacting NIRF ranking
- 3-year tenure of Chairperson and appointment from within the ranks limits fresh ideas and has made it difficult to develop and implement a long term strategic plan for DCET
- Process for approval of funds is bureaucratic and time consuming
- Lowered NIRF ranking adversely impacts quality of students and faculty, employment opportunities for students and starting salaries as well as the funding that DCET can get from the industry

Foundations of the Strategy/Policy Boundaries

The obvious solutions (Request more funds, hire more faculty, increase student fees, streamline approval processes etc.) are difficult to implement and to find a solution we must treat them as policy boundaries.

Policy Boundaries:

- ❖ 3-Year Term for Chairperson remains
- ❖ Student Fees cannot be increased dramatically
- ❖ Chairperson's authority limitations stay unchanged
- ❖ DCET has to operate within the University's system for approval and hiring of faculty's positions
- ❖ DCET can request additional funds but will be limited to its allocated share

Strategic Options

A sustainable financial model for DCET would be where:

- ❖ 33% funding comes from the Government
- ❖ 33% funding from the Industry
- ❖ 33% funding from the Alumni

Comparing it to today, there are significant gaps in funding from the Alumni and the Industry. This is the basis for the following Strategic Options:

Strategy 1: Secure additional funding from the Government to hire additional faculty and maintain buildings and equipment

Strategy 2: Secure research grants from the Central Government and its agencies and from international organizations to build competencies in targeted areas of excellence and to market those services

Strategy 3: Engage with the industry to ensure DCET's area of research are aligned with the industry and society's needs, to secure JIP's, to secure CSR funds and to build DCET's brand image

Strategy 4: Engage with the Alumni to inform, seek guidance, cooperation and support

Building out the Strategies

Strategy 1: Goal: Achieve a full time staffing level of 41 asap preferably in the next 2-3 years and maintain it

Process of hiring and filling the vacancies needs to be dramatically improved on an urgent basis

Strategy 2: Goal: Fund research in DCET's critical areas of Excellence

TEQUIP 1, 2, and 3 could be considered a part of this strategy. Although DCET continues to apply for research grants it is not clear whether they are opportunity driven or strategy driven

DCET's advertised areas of research (Polymers, Environment, Nano technology, Energy etc.) are too many. Culling and alignment with regional and national needs is necessary. Once key areas of excellence are identified, building competencies will take time

Building out the Strategies

Strategy 3: Goal: Meet 33% of DCET's expenditure from JIP's and from CSR funds

Two separate ideas: 1) CSR Funding: Need to define the target and develop a plan to achieve it

2) Identify and exploit opportunities for JIPs. Need to evaluate the size of the opportunity and develop short and long term plans for harnessing the same

3) Seek help from the Industry Advisory Board to achieve this goal

4) Explore opportunities to do contract research for the Chemical Industry and seek funding from international foundations for University research

Strategy 4: Goal: Meet 33% of DCET's expenditure from DCET Alumni in a 2-3 year time frame and build a sizeable endowment over time to fund DCET in perpetuity

Develop a comprehensive Alumni database and build meaningful relationships

Plant the seed of an Alumni family in the new students from day 1

Form an Alumni advisory Board

Get approval from GOI to receive funds from abroad

Focus on student chapter activities

Peripheral Changes needed

Chairperson's 3-year Tenure is a Policy limitation.

However, DCET's goal of achieving a premier status can neither be achieved in 3 years, nor can it sustain major changes in Strategy or DCET's Work Plans with changes in DCET's Leadership every three years

*A critical first step therefore is to develop a well thought out **Long Term Plan (LTP)** to achieve Premier Status which should have the **buy-in** of senior faculty members of DCET. It should be developed jointly with their help*

The group developing LTP should also seek agreement on Strategy, Work Processes, and Work Plans

This will lead to a smoother transition when the change of leadership happens every 3 years and ensure that DCET stays firmly on the path of progress towards its goal of achieving a Premier Status

Critical Success Factors

1. Assess, hire and maintain full faculty and staffing levels
2. Maintain accreditation status
3. Develop a Long Term Plan
4. Develop Systems, Work Processes and Work Plans
5. Build a Leadership Team in DCET which takes the ownership of building and implementing the LTP and Strategies
6. Carefully monitor the financial model and take corrective steps when contributions fail to meet the stated targets
7. Ensure that Strategies, Systems, Work Processes and Goals do not change when there is a change in Leadership every three years
8. Celebrate successes both big and small to keep all the players motivated and excited
9. Stay focused on the goal
10. Every 6 months take a critical look to check if the Plan and Strategies are working as designed. If not, take corrective actions

Background

Based on the Strategy document, the key foundations for regaining pre-eminence are:

- 1) Financing through a three prong approach i.e. University, Industry and Alumni
- 2) Strategies for DCET to ramp-up in these areas such that these three prongs deliver a third of the department's budget, and
- 3) Areas of Excellence.

Last Meeting

1. We have had brief discussion about the Areas of Excellence in the past and the last meeting but there was neither consensus nor clarity about them
2. At the last meeting there was some energy around: *Biomass, Pharmaceutical and Agri & Food*
3. If it is indeed these three areas, we need a better definition and a clarity of scope in each
4. Whatever DCET wishes to pursue as Areas of Excellence should meet the following criteria

Background Work

1. Market surveys to assess regional and national needs in the selected area
2. A survey of the industries currently working in these areas and those that are planned in the short and medium term
3. Funding available from regional and national governments for projects related to these areas
4. Will pursuit of this area have the potential to generate sufficient revenue for DCET in terms of CSR funding, government grants, and joint industry projects to meet 1/3 of its annual budget both now and for the foreseeable future?
5. Will it provide DCET competitive advantage in terms of its location and resources when compared to other chemical engineering institutes, both public and private, in India, to allow DCET to displace them from the top 10 in due course of time as it gathers prominence by virtue of its expertise
6. A rough assessment of the skills and competencies required, DCET's current state, and both steps and time required to fill those gaps and DCET's plans on how it would go about doing so.
7. The time and resources required before DCET could openly declare that a particular area is truly its **area of excellence** and can support such a claim through published work and testimonials



PATH FORWARD



THANK YOU