

Student Start-up Support Systems (S4) at Gujarat Technological University(GTU)

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Insights drawn from the efforts made at GTU Innovation Council-Co-Creation Centres



100,000 students involved in hub and spoke
model

Policies for a small part of India

- GOI Policies designed for IITs, NITs and residential Universities.
- All the GOI support for educational incubators to IITs, NITs and IIMs –cater to 1.5% of Tech students → Generate about 40 innovations yearly. The same ones: presented in all the Innovation Competitions all over the country
- No of incubators: 5000 globally vs. 65 in India

About 95% of BE/BTech students are with affiliating-type Universities

Only GTU is creating a hub-and-spoke model of Innovation, which is already producing results. But with ZERO support from any GOI agency.

Three Types of Interventions

influence start-up decisions

- **Community Inputs:**

- from family and friends of a student
- alumni contacts → *GTU Alumni Association
- local success stories of start-ups → **GTU Innovation Sankuls

Note: The only other example of a Sankul-like movement is from Dahlian University, China. We have 25 Sankuls – started on August 2, 2010. They started similar 29 entities at nearly the same time. But they have already put up 29 campuses..

- **Pedagogical Inputs: UNIQUE for GTU in India**

- *Design-oriented and Project-based Learning systems

- **Systematic Process for Final Year project including Stanford and OpenFuel canvases,

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Three Types of Interventions influence start-up decisions2

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- **Pedagogical Inputs:** UNIQUE for GTU in India ..*continued*
***Patent Search and Analysis Report (PSAR) and Patent Drafting Exercise (PDE).

- **Extra/Co- Curricular Inputs:** from student clubs & competitions: **GTU has the following unique structures:**

*OSTC (Open Source Technologies Clubs)

**MWTC (Mobile & Wireless Technologies Clubs)

***S4 (Student Start-up Support System) Extension Centers and Community innovation Co-Creation Centers (C-i-C3)

One C-i-C3 has been set up on May 1, 2014.. Nine are proposed to be set up during 2014-15. There will be one C-i-C3 in every Sankul.

GTU's Indus Valley Model for Student Start-ups

- an inverted pyramid plan

*1 lac ideas-10,000 proto-types-500 start-ups per academic year

GTU MODEL: *Embed start-up culture into academia –
ALREADY BEING DONE

**create filtering mechanism for students with a potential -- IN
PROGRESS

- Designed for the middle class students from small towns; They need *in situ* distributed model of incubation **focussing on hard technologies** and not just IT as tech triggers.
- Can work only with a strong Hub, which can support the spokes

GTU's Indus Valley Model for Student Start-ups.....2

- Embedded student entrepreneurship training → better employee/
high motivation for Skill development.
- Organic growth and competency building of start-up ecosystem :
 - *a dedicated and competent team of Research Assistants and Student Fellows with enough autonomy for implementing fast track processes at GTU – in the absence of government sanctions for regular staff.
- permitting interested students to explore the challenges even in college days
 - *Flexible and modern syllabi * Unique regulation for individual Elective and group- Elective at GTU for learning new and niche technologies – student driven methodology
- **Each C-i-C3 to provide facilities for working during 'after-hours' and holidays

GTU's Indus Valley Model for Student Start-ups.

ISSUES

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1. Not able to provide **Funds at early stage** at prototype level.
 - * GTU invites venture fund/ angel funding agencies ** GTU has developed a systematic protocol for **CrowdFunding**
 - ** Government of Karnataka has decided to provide funds for about 500 students at up to Rs 3 lac per head
2. * GTU provides **Patent Clinics for easy IP support at preliminary application level.**
 - Needed IP angel, fabrication angel concepts. Needed micro venture and pre angel funds
3. Needed single window facility so that student start-ups gets funds from Govt. Policies without much hassle.
4. **GTU's Pedagogic and i-SCALE Awards include those for outstanding technical Start-ups.**

GTU's Indus Valley Model for Student Start-ups.

ISSUES

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GTU's Sankuls model addresses the issues of

- MSMEs :
 - cannot afford / fail to attract Bes/ Btechs
 - cannot afford own in-house R&D and innovation process.

Sankuls are designed to use College Labs and Workshops as the Development Centers for MSMEs.

However no help whatsoever for Sankuls till now from any governmental agency.

Requirements of GTU

- Facilities at every Sankul:

Dahlian Univ of Science & Tech started building their area-wise structures (like GTU's Sankuls) nearly at the same time as GTU – in 2010.

They have built 29 campuses at each place.

GTU is required to build 25 Sankul Centers.

- Attract good number of mentors and build a strong but decentralized Project and Mentor platform.
- Attract an Incubator CEO with prior entrepreneurship experience.
- Set-up annual medals for the best start-ups like academic achievers - after entrepreneurship activities are well established at the 25 Sankuls

Admin Innovations: Necessary for Success

- Upgrade start-up Pedagogy

1. Upgrading Teaching Resources :

- GTU is creating and organizing teacher development programs for existing faculty continuously
- New Recruitment policy for inducting start-up founders & entrepreneurship practitioners from market with non conventional benchmarks.

2. Creating online high quality resources for start-ups. Promoting decentralised online tools rather than centralised tools. The later is cost efficient but former is performance efficient.

What AICTE can do

- Systems and support for building continuously- capacity of all University based incubators, start-up systems and processes, led by proven entrepreneurs from industrial sectors.
- Making a co-working space mandatory in every AICTE approved Eng colleges with a carefully framed set of processes.
- Create benchmarking points so that every Technical college should be required to make efforts for promoting entrepreneurial culture.

What AICTE can do

- Redesign academic component of entrepreneurial learning:
GTU has developed a hands on and design oriented learning process. Others follow theoretical learning of entrepreneurship.
- Mandate: Every young faculty member should work in an industry for six months, with full salary through the affiliating University
- Make policies for Start-up Fellowship: Create special support like selected fellowship for student start-ups at university/college level for a year or two even after they graduate out so that the teams can sustainably grow and upscale
- Create policy for Gap Year for students - concept of Student Entrepreneur in Residence.

Question?

Thanks