



Confederation of Indian Industries

Proposal for Project Based Learning
For
Colleges affiliated with
Gujarat Technical University



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1.Executive Summary

One of the key challenges faced by students and colleges is getting practical exposure to industry and being able to work on real life problems. Gujarat Technological University has taken strides to address this challenge and has initiated a major step to get the active engagement of SMEs and large companies in Gujarat to support the desire of the students to take up projects as part of the academic requirement.

One of the constraints faced by the university and the students enrolled in Computer Science programs is the lack of a large base of IT companies in the state. Recognising the need to address this issue, CII has discussed with the university and has come forward to bring together projects from the leading IT companies and enable students of Gujarat to get the same learning experience as students from the states of Karnataka, Tamil Nadu and others thus helping them become competitive and better employable. The proposal outlined enumerates the support envisaged for providing better access to software projects for students of GTU.

2. Introduction

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the growth of industry in India, partnering industry and government alike through advisory and consultative processes.

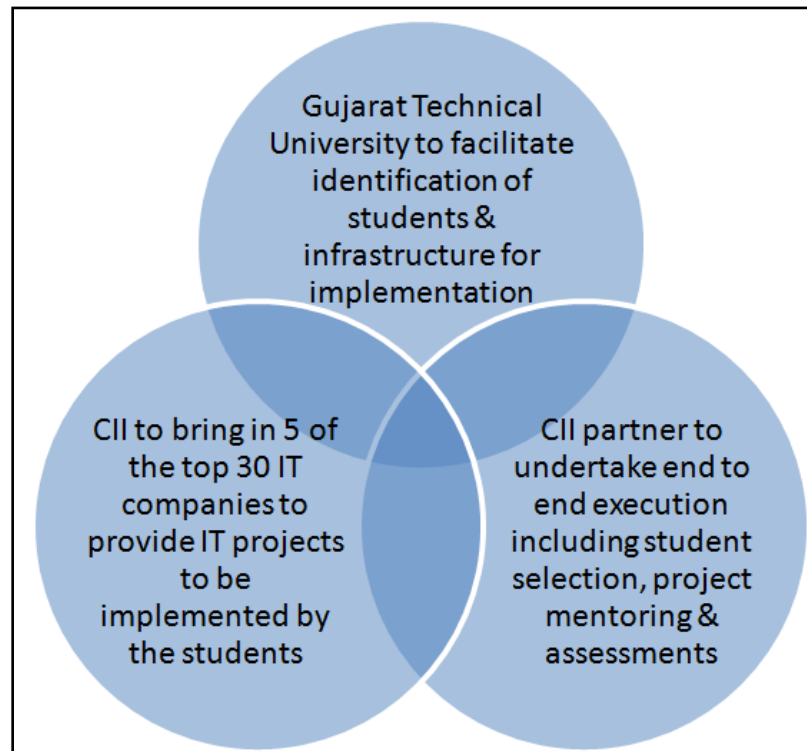
CII is a non-government, not-for-profit, industry led and industry managed organisation, playing a proactive role in India's development process. Founded over 115 years ago, it is India's premier business association, with a direct membership of over 8100 organisations from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 90,000 companies from around 400 national and regional sectoral associations.

Based on the discussions between the representatives of CII and Gujarat Technological University, CII is keen to propose an engagement model for providing project based learning environment to students of the university in association with CII partners & industry associations.

3. Proposed Model

CII will leverage its industry connect and bring together IT companies to participate in the proposed model for providing real-live project scenarios to be implemented by students of the university. The focus is to provide a firsthand experience of the IT project environment to the graduating students.

The following is the proposed model.



The complete execution of the project right from start to finish of the process will be undertaken by CII partner Global Talent Track Pvt. Ltd.(GTT)

GTT is a venture funded by Intel Capital, Helion Ventures & Cisco with focus on providing skills based education & training aligned with the industry, thereby creating a talented pool of readily employable candidates.



4. Process Flow – Project Based Learning

The following is the process to be followed:

eDNA – Assessment of candidates technical ability & proficiency in communication, analytical ability & numerical ability

Selection of candidates & segregating them into suitable groups of 5-6 each.

Allotment of projects, orientation, providing tools & templates for development, mentoring and periodic evaluation.

Assessments & Presentations at the end of the program and grading of each student/groups.

- i. The eDNA is an online test developed by GTT that that measures the gap between the student capability & the industry's requirement. Based on the scores it will be possible to recommend the students suitable tracks for the project based learnings.
- ii. ***For students who do not meet the desired proficiency in the technical test, GTT will recommend suitable training program in order to ramp up their technical skills & knowledge of fundamentals.***
- iii. The projects bank (approx 5 to 10 from each company) will be secured by CII from amongst the top 30 companies within the IT & ITES industry. These projects will have a detailed description of the scope & recommended platforms and methodology to be used for the implementation/development. In addition, GTT will provide the students with access to various project tools & templates (online) through the GKPPP collaborative platform.
- iv. Students will be divided into groups based on their eDNA test scores and a project manager will be provided to coordinate the entire program. In addition, candidates will be given mentoring online through the subject matter experts and project guides from GTT.

5. About the collaborative tool - GKPPP

Global Knowledge Platform for Professional Practice (GKPPP) is a collaborative framework that is focused on achieving high level competency in a learning environment. The framework is global in the sense that it can be applied to any domain or area requiring high competency for performing effectively in a professional career.

There are five key characteristics that are the backbone of the GKPPP framework. The first is Reflection which is a primary step to positive change – it is a necessary stage in identifying areas for improvement and growth in both personal and professional contexts. The second is the Adaptive learning approach, which prepares students to apply what they learn to the various and various situations that may occur in real world. At the heart of adaptive learning is interactivity which enables learners to understand the topic from different perspective, reflect on the learning and associate the same within their learning framework. The third is the Constructivist approach to learning, which emphasizes real world, challenging projects that include participation from students, teachers and experts. The fourth is Collaborative learning focus, which shifts from Teacher to group coursework. Collaborative learning ensures students instead of developing simple memorization skills must engage in higher-order thinking and delve deep into a given problem with their peers in order to work out a variety of solutions or outcomes. Finally comes Reification, which refers to 360 degree learning. It literally means a learner achieves mastery and high maturity of a topic or a subject when the ‘learner becomes teacher of herself’. When this happens the learner is able to construct new real world complex situations / problems and conceptualize, analyze and build superior solutions with high degree of confidence.





6. Investment Required

Fees from Colleges

Since the College has charged every student the full annual fee for all the courses, CII would like to be given a token payment for its services by the College. As a special goodwill gesture, to the Colleges affiliated with GTU, CII would charge to the College a fee of INR 3750/- per student in the first phase. Fee includes service tax and costs of conducting eDNA assessments by GTT. All fee payable 100% in advance.

It may be noted that no student is to be charged for the service and this will be strictly a transaction between the College and CII.

Colleges to facilitate the following

- Mobilization of students who will be part of the proposed project based learning upon selection by GTT.
- Computer lab with internet connection min 2 mbps per machine for conduct of assessments and training
- Classrooms with overhead projector & screen for training
- Nominate a Coordinator for scheduling the training / batches alongside the university pedagogy and be the single point of contact for other academic & student matters for execution of the project.
- Premises for conduct of candidate assessments (online) and computer lab with LAN connectivity and Internet connection of min 2mbps for students to work on the implementation of the project.
- Colleges interested in participating in the proposed initiative to ensure minimum 50 students sign up per college in the first phase in order to ensure effective support and success of the initiative.

7. Next Steps

- Colleges to contact at the following address:
Amit Pachauri
Director- Skills Training & Higher Education
Confederation Of Indian Industry
e-mail: amit.pachauri@cii.in
- CII will take up the project at colleges, where at least 25 students are to be guided by CII.
- The College to provide support for scheduling candidate selection in consultation with CII & kick start the project implementation



8. Case Study –Allahabad University Project

GTT has successfully partnered with Allahabad University to provide GTT Capstone – a project based training program to candidates from final year MCA & BCA streams. Under the project, candidates undergo a training /orientation on java & dot NET fundamentals that they use in the project implementation.

Proposed approach

Project Topic Choice:

- Project Topics were discussed & allotted to BCA/MCA students, so that they can choose area of interest.
- This activity was performed as soon as the dates of execution, batch size and other details were finalized with the university authorities.

Understanding of Project Purpose:

- As per the Capstone Project Plan, it was ensured that the initial 1/2 weeks would be spent in Information Gathering & Project Understanding – with appropriate deliverables.
- The focus was to aid the students in understanding the Domain and Purpose of the Project.

Project Topic Modularization:

- Assigned Project Topics were clearly split up into modules for individual assignment, performance monitoring and ease of assessment.
- This was achieved as a part of the Project Plan, with specific milestones at each phase of the SDLC.

Usage of Frameworks/Concepts handled during Training:

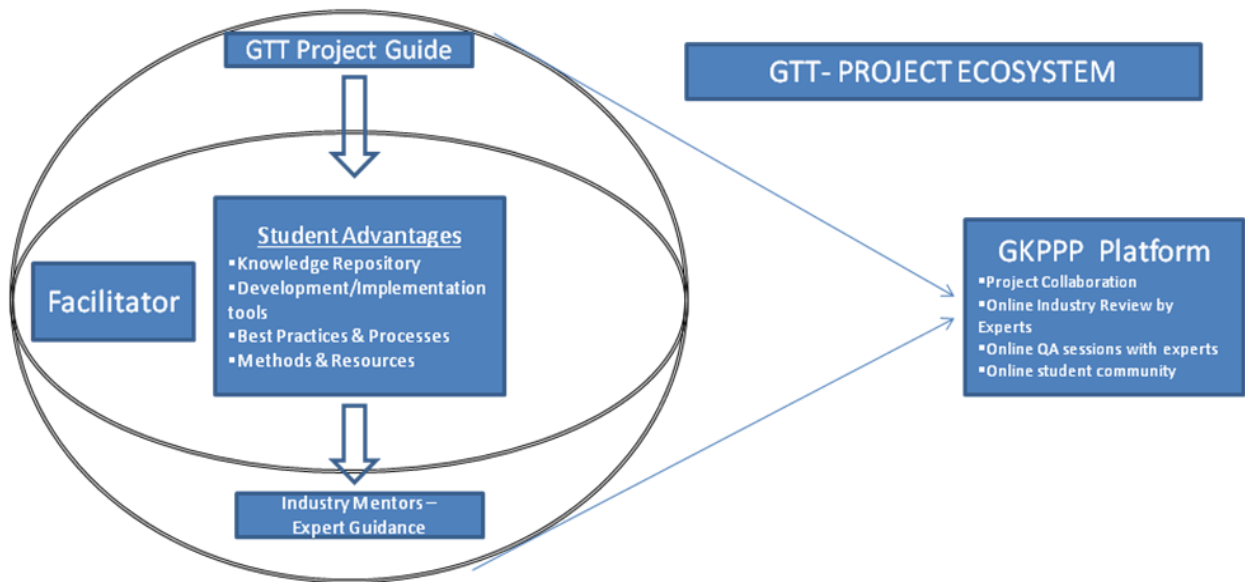
- Students were mentored in implementing only the technologies and concepts which were handled during training.
- Open Source frameworks were not used during the project.

Project Guide/Expert Support

- Project Guide/Expert were available at the Campus during the entire project review
- Where the expert were not present physically, continuous support was provided through online tools using WebEx during University hours
- In exceptional cases, a Communication Channel Plan (between Students and Project Guide) was jointly signed-off.



GTT project ecosystem



GTT Project collaboration platform (snapshot)

Each candidate will be given a user id & password to collaborate online & share information, details, project reviews & get reviews within the community.

The screenshot shows the 'My Projects' section of the GTT Project collaboration platform. The user is logged in as 'Usha Kunjir'. The interface includes a navigation bar with 'MySpace', 'My Teams', 'My Projects', and 'Community'. The main content area is divided into several sections:

- Project Team Members:** Lists team members for 'GTT Project 1', including Abdul Rashid Haji, Abhik C, Aikon Labs, ajay sarve, and Ajay Shirkant Khule.
- Project Dashboard:** Displays project details for 'GTT Project 1', including the source URL, status (InProgress), and manager (prafulla raut, Usha Kunjir). It also shows a progress bar for 'Milestone status' with 80.00% completed and 20.00% remaining.
- Project Tasks:** Shows a list of tasks for 'GTT Project 1'. The current milestone is 'DFD', which is 'Completed' and planned for 'Mon, 09 Feb 2009'. It also shows 'Total Tasks: 0', 'Open Tasks: 0', and 'Closed Tasks: 0'.
- My Tasks:** Displays a list of tasks for the current project, including 'Upload Document of Understanding the Process' (Priority: NORMAL, Due date: Mon, 12 Oct 2009 00:00 AM, Overdue!), 'Create SRS', and 'First Visit to MOU'.



Student Testimonials



Sowmya – student BCA

“I came across the best method of applying my learnings when I was part of the team that worked in projects assigned by GTT. The mentoring & guidance throughout the projects helped us a lot in clarifying our myths about working on projects & getting a feel of the IT industry”.



Kavitenda – student MCA

“During my MCA, I came across GTT projects program which provide me an opportunity to come face to face & experience the complete project lifecycle by working on the project implementation with the team.