



11th Best Educational Quality Enhancement Team (BEQET) President Award Winners Presentations

First Prize winner : SIES College of Arts, Science & Commerce, Sion (West), Mumbai

“Enhancing Competency and Empowering Students for Employability through Online Courses”

Team Leader: Ms. Mahalaxmi Nadar

Team Members:

Ms. Maya Nair, Mr. Santosh Tiwari, Dr. Pramod Ghogare

ABSTRACT: One of our institutional Mission is to 'Equip students with global competency' and objective is 'To promote opportunities to learn professional and skill based programmes'. We have identified following as the key problems in implementing it:

- Academic constraints – outdated curriculum, not as per industrial needs
- Teacher's time constraints, due to regular teaching time, examination and college activities
- Personal Customized time table could not be provided through regular value added courses run by the Centre
- Our college is offering many offline professional and technical courses but we had to provide a more flexible solution in terms of time convenience and material contents

Our team tried to identify the cause of the problem and took various steps to implement online course study by taking up a government project and has succeeded in the same. The team made use of various quality enhancement and productivity tools like DMAIC principle, five why's, Ishikawa Diagram, Root Cause Analysis with NGT, Pareto Analysis and PDCA.

This project has not only brought many laurels to the college but was also recognised by National Centre for Quality Management and we have been awarded with 1st prize in the 11th BEQET President Award 2016.

INTRODUCTION: SIES College of Arts, Science and Commerce, has dedicated itself to the cause of promoting excellence in education ever since its inception in the year 1960. Our mission and vision are geared towards an education that seeks to mould 'humane' individuals who are acutely aware of their responsibility towards the human society. In order to realize our goal we provide every possible support – intellectual, technological (The Prajnya Centre and the Centre for Excellence) and emotional (Spandan – our Mentorship Cell). Initiatives such as the Value Lab, Our Institutional Social Responsibility Cell and Our Zero Waste Policy ensure that our students become morally, socially and environmentally responsible citizens. In an increasingly materialistic environment, our institution has dared to follow a policy of “Admission strictly by merit” and no Capitation fee is charged. We believe in leading by example. The youth of our nation are the most important assets we depend on. We hope that the students who step outside the portals of the college will be individuals who are worthy of that trust. We are confident that our efforts will fructify in the form of a self-aware pro-active youth engaged in nation-building.

PROBLEM DEFINITION: As per the survey conducted all our students were aspiring to pursue professional courses but could not pursue due to non-affordability and non-accessibility. **We realised they have the intellectual capability of acquiring the professional curriculum but due to circumstances they have settled on the current curriculum.**

To enable students to fulfil their professional aspirations with flexibility of time and curriculum we introduced Massive Open Online Course's (MOOC's) based education with *National Programme in Technology Enhanced Learning (NPTEL) through IIT Madras a joint initiative of NASSCOM funded by Government of India through Ministry of Human Resource Development (HRD) powered by Google*. NPTEL was chosen because of its curriculum that caters to industry-specific requirements (prepared by IIT professionals), its cost effectiveness (no course fees, nominal exam fee with scholarship facility) and well planned schedule of the course commencement, weekly assignments, examination and results.

Our team along with staff of all the departments of the college who worked together to achieve success in this project which was recognised by NPTEL IIT Madras in their national portal.

PROJECT IMPLEMENTATION: NPTEL Online Certification (NOC) is conducted by IIT Madras is a joint venture of seven IIT and IISc's. Our college is recognised NPTEL Local Chapter centre to conduct these online courses since December 2015.

- Course contents are designed by faculties of IIT/IISc with a view to conduct courses which are not part of the AICTE curricula but which would address the short and long term training requirements of industries.
- It is supported by NASSCOM with a vision to enhance employability and competency in all. We had taken up this project as a feasible way to fulfil the college's vision and mission.
- No registration Fees as it is funded by *Government of India through Ministry of Human Resource Development (HRD) with a vision towards Digitalization of India, ignited by our Prime Minister.*
- The online contents are powered by Google. Through NPTEL Google is offering many new web based online certification courses, internships, projects and placements.
- Staff members from different discipline involved as mentor monitored mentee's assignments and also conducted a few offline doubt solving interactive sessions which enhanced the bond between teachers and students.
- Flexibility of accessing course content has solved the time constraints of teachers and students.
- Once enrolled all course materials can be downloaded and used whenever needed.

- The student clearing the online exam will receive an NPTEL IIT certificate which will make them employable and enhance the opportunities for higher education.
- The toppers name listed in IIT website.
- As per NPTEL IIT Madras for every local chapter appointment of SPOC and involvement of teachers as mentors is mandatory but in addition to that we involved students as volunteers and brand ambassadors to enhance their managerial skills, leadership skills and team management.
- Conducted orientation workshops for the students and staff.
- Mentors for various courses monitored mentee's assignments and also conducted a few offline doubt solving interactive sessions.

TANGIBLE BENEFITS

- Students involved in this project apart from volunteering also participated in the NOC examination to gather knowledge. Thus students became global competent. Recruitments increased by 60%.
- A total of 27 students are listed as all India toppers in the national portal of NPTEL during the March– April 2016 and September – October 2016 NOC examinations
- 30 staff members from different discipline were involved as mentor for 29 different online courses during each run of March 2016 and December 2016 batches, which enhanced the bond between teachers and students involved.
- 45% of students could clear entrances of premier institutions and were placed in well-known companies.
- A total of 500 students received 50 % scholarship on NOC Examination fees. The fees was sponsored by Aricent Technologies limited as a part of their Corporate Social Responsibility (CSR) through NPTEL. Total amount of scholarship utilized by our staff and students was Rs. 2,50,000/-.

INTANGIBLE BENEFITS

- The college graded with the highest grade “AAA” all over India by NPTEL.
- The college secured 8th position among Top 100 institutions in India running NPTEL program and ours is the only Non-professional institution in the list.
- 2 staff member in Top 5% in September 2016 examination.
- 1 staff member in Top 1% September 2016 exam.
- Overall Personality development leading to greater self confidence
- Increased Managerial skills, leadership skills, working in a team.
- Data and online content handling.
- Better opportunities for job placements

RESULTS AND CONCLUSIONS

- Overall course impact is depicted in the graph. As it can be seen there is vast increase in the beneficiaries in the September-October exam compared to March-April

exam. This indicates that more students are availing the facility due to the feedback from previous batch. All courses participated by the college has mentors, to motivate the students and to help them come out with flying colours



- The team will continue working further for the NPTEL Online Certification courses and expand the project implementation during the next academic year.
- The Centre has also collaborated with following organizations to enhance better career opportunities by adding more value added online courses along with the existing program.

PROJECT HIGHLIGHTS WITH ACHIEVEMENTS

- ✓ Globally competent advance learners created a benchmark through online courses.
- ✓ The only non-professional college securing 8th position rated with 'AAA' grade among top 100 professional institutions, universities, management colleges involved in the National Program in Technology Enhanced Learning (NPTEL) Local Chapter of IIT Madras.
- ✓ Over all 27 students topped in the NPTEL Online Certification held during March and December 2016 examinations.
- ✓ 45% of students could clear entrances of premier institutions and were placed in well-known companies.
- ✓ The success of this government venture was presented in the form of team project in the 11th Best Educational Quality Enhancement Team (BEQET) President Award 2016 competition organized by National Centre for Quality Management (NCQM) at Kailas Industrial Complex, Vikhroli, Mumbai on 28th January 2017 and the team won 1st prize.



BEQET 1st Prize winner team SIESASCS with all dignitaries of NCQM & D. L. Shah Trust

Second Prize winner : Don Bosco Institute of Technology, Kurla (W), Mumbai
Optimization of number of pages in Answer Book to reduce the wastage, thereby deforestation



BEQET 2nd Prize winner Team Leader Ms. Jyoti Nimbhorkar receiving Trophy and Certificates from CEO of DLShah Trust Mr. Khushroo Khambata along with NCQM Trustee Shri Mahesh V. Gandhi and

Team Leader: Ms Jyoti Nimbhorkar

Team Members:

Ms Jyoti Nimbhorkar & Mr. Prasad Padalkar

1. **Project Area:** Reduction of Paper Wastage.

2. **Project Motivation:** During the Assessment process, there used to be discussion among the faculties regarding the wastages of unused answer sheet in the Main Answer Book. We decided to analyse this issue and come out with acceptable solution to reduce the wastage.

3. **Observation :** Best students use 27 pages for college exam. DBIT provides main answer sheet of 40 pages. Average minimum 13 pages have to be discarded after evaluation.

Exercise was undertaken to optimize number of pages in the main answer book.

4. **Experimenting Solutions:** Result of implementation of Main supplement as Pages 30 + supplement is of 4 pages. It is expected that student may not require any supplement.

5. **Project Closure :**

	Target Benefits	Achieved Benefits
Tangible	Financial savings on the cost of paper. Expected Saving	Saving due to reduction in paper usage = INR 72,000 per annum
In-tangible	Expected Trees saved = 8.6 trees every year	Actual Tress saved = 8.6

6. Enlarging Application

Based on the data collected for the First Year Engineering (FE) and Final Year Engineering (BE), if similar model is applied. Following could be the extent of savings:

	Target Benefits
Tangible	Financial savings on the cost of paper. Expected Saving= 7,21,000Rs
	Expected saving of papers = 18,04,000 sheets of papers
In-tangible	Expected Trees saved = 216 trees every year

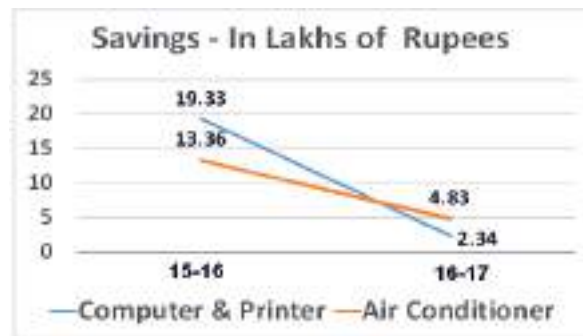
Joint 3rd Prize winner: The South Indian Education Society, Nerul, Navi Mumbai
Cost reduction & improvements in Annual Maintenance contract "(Air conditioner & IT Products)"

Team Leader: Mr. S. Gopalakrishnan

Team Members: Mrs. Poornakala Kaushik

The team undertook an exercise to consciously reduce the cost and also make improvements in the Annual Maintenance Contract for Air-conditioners and IT Products. The proposed cost reduction target was an optimistic 20% and the final outcome turned out to be a phenomenal 80% which was possible through a detailed study of the current practices and planned changes.

We had hired an IT engineer for the maintenance of all Desktops and Printers by paying him on a monthly basis with services rendered thrice a week. A similar approach was adopted for the Air conditioners across all the SIES institutes where in the service engineer would attend to the different Air cons based on a timetable and keep records for all the units namely Split, Window and ductable Airconditioners. From per tonnage basis we moved to a more economical mode of hiring an engineer on per month salary criteria. The following Line Chart gives a clear indication of the savings achieved.



In doing so we increased the savings to 80% and the controls we adopted was introducing a daily service report and servicing of 6 machines per day by the service provider that would include both indoor and outdoor units. We also standardized on the maintenance of temperature of the Airconditioners. We also plan to have a quarterly business review to monitor the service provider's performance.

As part of the future plans we are proposing another solar system with 100KW capacity and convert all tube lights to LED Tubes in a phased manner.



3rd Joint prize winner Team members receiving trophy from Mr. H.K. Taneja, Trustee D. L. Shah Trust along with Mr. B. Banerjee, President NCQM

Joint 3rd Prize winner: SIES Nerul Project IT Resources Optimization



3rd Joint prize winner Team members with all Dignitaries
L-R Mr. S. V. Viswanathan, Shri Mahesh V. Gandhi, SIES-IT
Team Members Ms. Sneha Guhe, Mr. Sachin Kadam and Team
Leader & CIO Mr. Milind Naik, Mr. H. K. Taneja,
Mr. B. Banerjee, Mr. Anand Sen & Mr. Khushroo Khambata

Team Leader : Mr. Milind Naik, CIO, SIES

Team Members: Mr. Sachin Kadam, Ms. Sneha Guhe, &
Coordinators from each SIES College

Objective of the project was to optimize IT resources to have
quality services and support.

Project start date: 1st DEC2015

Project completion date: 30th NOV 2016

Project Status: Completed successfully.

Our Philosophy of working is take the ownership to the best of
your ability and perform at your work place.

It is said that Quality is Never an accident but it is a consistent
effort and attempt to refine and improve!

Our key focused area and objective was

- ◆ IT Hardware Resource Optimization
- ◆ IT Software Resource Optimization
- ◆ IT Network Resource Optimization
- ◆ IT Human Resource Optimization
- ◆ IT Services Optimization, Cost savings & Quality improvements

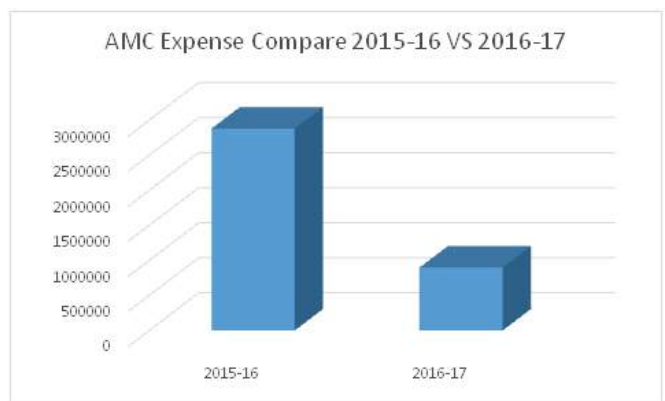
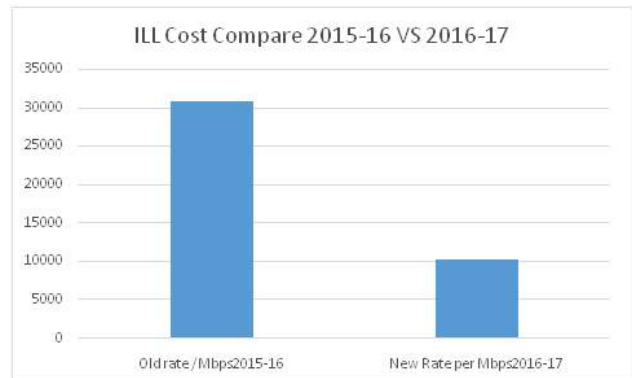
Various tools and methods used for project analysis and data
analysis.

Some of them are PLAN-DO-STUDY-ACT [PDSA], cause &
effect diagram, Flow charts etc.

Conclusion

- ◆ Optimized IT Infrastructure Services by in house FMS
and AMC services
- ◆ Optimized IT assets by recycling Old IT spares
compatible with faulty one rather scrapping.

- ◆ Sharing of IT resources Like Fire-Wall, Data Centers,
Servers and Server Software Licenses.
- ◆ Better quality of SLA at reduced costs by having
centralized IT Helpdesk and Reporting.
- ◆ Recurring cost saving of Rupees 1.04 Cr per annum and
many intangible benefits listed above.



We look ahead for better ways to optimize and use IT
resources to their full extent.

**“You can not
achieve an aim
unless you have
a method.”**

– W. Edwards Deming