

# The Annual Quality Assurance Report (AQAR) of the IQAC

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC. (Note: The AQAR period would be the Academic Year. For example, July 1, 2012 to June 30, 2013)

## Part – A

AQAR for the year (for example 2013-14)

2013-14

### I. Details of the Institution

1.1 Name of the Institution

Thapar University

1.2 Address Line 1

Patiala

Address Line 2

Punjab

City/Town

Patiala

State

Punjab

Pin Code

147004

Institution e-mail address

[dopa@thapar.edu](mailto:dopa@thapar.edu)

Contact Nos.

8288008126

Name of the Head of the Institution:

Prof. Prakash Gopalan

Tel. No. with STD Code:

0175 2393001

Mobile:

Name of the IQAC Co-ordinator:

Mobile:

IQAC e-mail address:

1.3 **NAAC Track ID** (*For ex. MHCogn 18879*)

**OR**

1.4 **NAAC Executive Committee No. & Date:**   
(*For Example EC/32/A&A/143 dated 3-5-2004.*  
*This EC no. is available in the right corner- bottom*  
*of your institution's Accreditation Certificate*)

1.5 Website address:

Web-link of the AQAR:

For ex. <http://www.ladykeanecollege.edu.in/AQAR2012-13.doc>

**1.6 Accreditation Details**

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 <sup>st</sup> Cycle	B <sup>++</sup>		2002	5 years
2	2 <sup>nd</sup> Cycle	A	3.15	2009	5 years
3	3 <sup>rd</sup> Cycle				
4	4 <sup>th</sup> Cycle				

1.7 Date of Establishment of IQAC : DD/MM/YYYY

1.8 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC ((for example AQAR 2010-11 submitted to NAAC on 12-10-2011))

- i. **AQAR 2012-13 submitted to NAAC on 11/10/2013**  
ii. AQAR \_\_\_\_\_ (DD/MM/YYYY)  
iii. AQAR \_\_\_\_\_ (DD/MM/YYYY)  
iv. AQAR \_\_\_\_\_ (DD/MM/YYYY)

1.9 Institutional Status

University State ☐ Central ☐ Deemed ☒ Private ☐

Affiliated College Yes ☐ No ☒

Constituent College Yes ☐ No ☒

Autonomous college of UGC Yes ☐ No ☒

Regulatory Agency approved Institution Yes ☒ No ☐

(eg. AICTE, BCI, MCI, PCI, NCI)

Type of Institution Co-education ☒ Men ☐ Women ☐

Urban ☒ Rural ☐ Tribal ☐

Financial Status Grant-in-aid ☐ UGC 2(f) ☐ UGC 12B ☐

Grant-in-aid + Self Financing ☒ Totally Self-financing ☐

1.10 Type of Faculty/Programme

Arts ☐ Science ☒ Commerce ☐ Law ☐ PEI (Phys Edu) ☐

TEI (Edu) ☐ Engineering ☒ Health Science ☐ Management ☒

Others (Specify)

1.11 Name of the Affiliating University (for the Colleges)

NA

1.12 Special status conferred by Central/ State Government-- UGC/CSIR/DST/DBT/ICMR etc

Autonomy by State/Central Govt. / University

Deemed University

University with Potential for Excellence

UGC-CPE

DST Star Scheme

UGC-CE

UGC-Special Assistance Programme

DST-FIST

UGC-Innovative PG programmes

Any other (*Specify*)

TEQIP - II

UGC-COP Programmes

## **2. IQAC Composition and Activities**

2.1 No. of Teachers

9

2.2 No. of Administrative/Technical staff

1

2.3 No. of students

0

2.4 No. of Management representatives

1

2.5 No. of Alumni

2

2. 6 No. of any other stakeholder and

0

Community representatives

2.7 No. of Employers/ Industrialists

0

2.8 No. of other External Experts

3

2.9 Total No. of members

16

2.10 No. of IQAC meetings held

2

2.11 No. of meetings with various stakeholders: No.  Faculty ☒   
 Non-Teaching Staff ☒ Students ☐ Alumni ☒ Others ☐

2.12 Has IQAC received any funding from UGC during the year? Yes ☐ No ☒

If yes, mention the amount

2.13 Seminars and Conferences (only quality related)

(i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC

Total Nos.  International  National  State  Institution Level

(ii) Themes

Quality Improvement

2.14 Significant Activities and contributions made by IQAC

*Attached as annexure-I, II, III, IV, V and VI*

2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year \*

Plan of Action	Achievements
<i>Attached as annexure II, III, IV, and V</i>	

\* Attach the Academic Calendar of the year as Annexure. (Academic calendar is attached as annexure-VII )

2.15 Whether the AQAR was placed in statutory body Yes ☒ No ☐

Management ☒ Syndicate ☐ Any other body ☐

Provide the details of the action taken

*Attached as annexure II*

## Part – B

### Criterion – I

#### I. Curricular Aspects

##### 1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD	All Disciplines	Nil	All	All
PG	29			
UG	13	4	All	All
PG Diploma				
Advanced Diploma				
Diploma				
Certificate				
Others				
<b>Total</b>	42	4		
Interdisciplinary	1			
Innovative				

##### 1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options

##### (ii) Pattern of programmes:

Pattern	Number of programmes
Semester	All
Trimester	NIL
Annual	Nil

1.3 Feedback from stakeholders\* Alumni ☒ Parents ☐ Employers ☒ Students ☒  
(On all aspects)

Mode of feedback : Online ☒ Manual ☐ Co-operating schools (for PEI) ☐

*\*Please provide an analysis of the feedback in the Annexure*

##### 1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

In today's scenario of globalization, a well-trained engineer is expected to possess knowledge of basic and applied sciences and scientific methods, an in-depth understanding of and professional competency in his/her area of specialization, versatility to work with inter-disciplinary groups and sensitivity to the needs and aspirations of the industry in particular and the society at large. The curriculum at TU has

been designed to produce engineers who would be capable of meeting these goals and is reviewed and updated periodically to ensure continued relevance. The scheme and syllabus of all programs is being continually reviewed as per the feedback from all stakeholders of the program. The focus of such revisions is to update the existing curriculum in accordance with the regulatory framework and bringing this more in line with the requirements of the industry. The system has an in-built flexibility for the changes. Changes in the curriculum can be implemented at any point of time.

BOS of all UG and PG courses have already been conducted to revise the schemes and syllabi. The revised schemes and syllabi will be placed in next senate meeting for approval.

1.5 Any new Department/Centre introduced during the year. If yes, give details.

School of Energy and Environmental Studies
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## Criterion – II

### 2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others (Visiting Professors & Lecturer)
258	154	39	29	36

2.2 No. of permanent faculty with Ph.D.

156
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2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
23		9		4		19		55	

2.4 No. of Guest and Visiting faculty and Temporary faculty

12
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2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	12	43	62
Presented papers	12	36	11
Resource Persons	2	48	94

2.6 Innovative processes adopted by the institution in Teaching and Learning:

All the courses include imparting instructions through lecture and tutorial method. The students also learn about a course through Laboratory assessment, Seminars, Projects and other Hands-on-Experience. They are also encouraged to survey the literature about a particular course. They also learn some of the courses through experimentation. Lecture rooms are equipped with multimedia facilities like LCD

projectors, audio systems and OHP's etc in the University and most of the faculty members use these facilities to the benefit of the students. Students and faculty keep pace with the recent developments in the subjects through IT-enabled education system, Projects, Seminar Assignments and Research Projects. All these efforts have improved the learning processes.

The impact of these activities is evaluated by a student response survey now being completed twice in each semester (in the middle and at the end of the semester) where students give their honest feedback about the teaching approaches/methods/practices adopted/put to use by the faculty. The response is obtained online and is blind. The responses are reviewed by Director, Dean and the Head of the Department and corrective action is initiated where necessary.

The University has made several efforts in giving the faculty due recognition for innovation in teaching. The University runs a performance incentive scheme wherein good performance in teaching and research is suitably rewarded. The scheme is operational since 2006 and several faculties have been recognized for their efforts.

2.7 Total No. of actual teaching days during this academic year

180

2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

All in practice

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop

65

2.10 Average percentage of attendance of students

75% min

2.11 Course/Programme wise distribution of pass percentage :

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
2013 UG-Ist Yr	994	166	473	237		
2012 UG-2 <sup>nd</sup> Yr	955	159	502	280		
2011 UG-3 <sup>rd</sup> Yr	905	168	546	192		
2010 UG-4 <sup>th</sup> Yr	851	152	527	127		
2013 PG-1 <sup>st</sup> Yr	589	123	322	80		
2012 PG-2 <sup>nd</sup> Yr	732	191	410	85		

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:

The University has established, documented and implemented a Quality Management System. Continuous improvement in the implementation and effectiveness of the quality management system is ensured through continuous reviews and internal audits. The University has identified the processes needed for the quality management system and their application throughout the organization process are



being carried out in the University. Documented procedures have been developed for the management activities, provision of resources, instructional design, delivery and control and measurement.

The University continually improves the effectiveness of the quality management system through the use of quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review. At the time of every management of review, through the measure of each objective and its comparison with earlier level of that objective, the trends are ascertained. Action points are then listed to continually improve the system. The status is reviewed in the subsequent management review meetings. The University conducts internal audits every six months to verify whether quality managements system conform to the quality plan and to determine that it is effectively implemented and maintained. The review of the quality system is carried out once every six months to ensure continuing suitability, adequacy and effectiveness in satisfying the requirements of the standard and the quality policy of the University. The review includes assessing opportunities for improvement and the need for change to the quality management system

### 2.13 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	3
UGC – Faculty Improvement Programme	2
HRD programmes	3
Orientation programmes	2
Faculty exchange programme	2
Staff training conducted by the university	3
Staff training conducted by other institutions	5
Summer / Winter schools, Workshops, etc.	32
Others	4 (Int. Conf.) and 5 (National Conf.)

### 2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	331			193
Technical Staff	103			51

## **Criterion – III**

### **3. Research, Consultancy and Extension**

#### **3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution**

For each Ph.D. student a specific doctoral committee is there consisting of supervisors, members from the cognate area from the candidate's department and outside the department & chaired by the respective head of the department/school. The doctoral committee monitors the progress of the candidate from time to time and specifically once in every semester through a formal presentation of work done during previous six months. The Dean, R&SP communicates to all departments/schools for research facilities and funding available by various sponsoring agencies from time to time. The progress record of research projects is maintained by the DoRSP office.

The Doctoral Committee constitutes of Head of Department/Schools as Chairperson, Supervisor (s) and two other Senior Faculty in the area of expertise as members. Each candidate has to make power point presentation of the progress before the Doctoral Committee and presentations are organized by the office of Dean (Research & Sponsored projects).

Regarding monitoring of research projects, a statutory body of the University i.e., Planning and Monitoring Board under the Chairmanship of the Director and other senior faculty being its members monitor progress of each project, the minutes of which are circulated. The meeting of Planning and Monitoring Board are held at regular intervals at least twice in a year.

Dean, R&SP convenes the meeting of all Heads of Departments/Schools in every semester to decide on the admissions to Ph.D. programme of the University.

The university proactively promotes participation of all faculty members as Principal Investigator for various sponsored projects/schemes and provides all the necessary and provides all the necessary support and basic facilities as well as to advance the funds as support to ensure smooth completion of the projects.

There are several joint research activities like Ph.D. supervision between various departments. There has been lot of synergy between some departments such as Mechanical Engineering with Chemical and Civil Engineering, Chemical Engineering and Biotechnology, Civil and Environmental Engineering, Computer Science and Mathematics, Behavioural Sciences with Management, Industrial Engineering with Management and many others. Many sponsored research projects are being guided jointly by faculty of two different departments.

MOU's with other Institutions are also operational which facilitate joint research activity. Many faculty members from different IIT's are acting as supervisors of the PhD students registered at Thapar University.

The details of such joint collaborative projects and joint PhD supervision are placed with Departmental/School's profile submitted separately.

3.2 Details regarding major projects (**from agencies other than Thapar University**)

	Completed	Ongoing	Sanctioned	Submitted
Number	16	106	23	---
Outlay in Rs. Lakhs	241.34	1950.77	465.49	---

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	1	---	2	--
Outlay in Rs. Lakhs	1.0	---	2.0	--

3.4 Details on research publications

	International	National	Others
Peer Review Journals	345		
Non-Peer Review Journals	164		
e-Journals	All published papers are available online.		
Conference proceedings	219	57	

3.5 Details on Impact factor of publications:

Range  Average  h-index  Nos. in SCOPUS

3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

Nature of the Project	Duration Year	Name of the funding Agency	Total grant sanctioned	Received
Major projects	2013-14	AICTE, BARC, CSIR, DBT, DRDO, DST, ICMR, MoCIT, NRB, UGC, Punjab Pollution control Board etc	437.99 Lakhs	21
Minor Projects	2013-14		2.0 Lakhs	2
Interdisciplinary Projects	2013-14	---	---	---
Industry sponsored	2013-14	Crompton Greaves, TCS	27.5	2
Projects sponsored by the University/ College	2013-14	Thapar University	62.35	12
Students research projects <i>(other than compulsory by the University)</i>	2013-14	---	---	---
Any other(Specify)	2013-14	---	---	---
Total		467.49 + 62.35=529.84		37

3.7 No. of books published i) With ISBN No.

Chapters in Edited Books

ii) Without ISBN No.

3.8 No. of University Departments receiving funds from

UGC-SAP	<input type="text" value="4"/>	CAS	<input type="text"/>	DST-FIST	<input type="text" value="5"/>
DPE	<input type="text"/>			DBT Scheme/funds	<input type="text" value="2"/>

3.9 For colleges

Autonomy	<input type="text"/>	CPE	<input type="text"/>	DBT Star Scheme	<input type="text"/>
INSPIRE	<input type="text"/>	CE	<input type="text"/>	Any Other (specify)	<input type="text"/>

3.10 Revenue generated through consultancy

156.5 Lakhs

3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number	4	5			
Sponsoring agencies	AICTE, DST, TEQIP-II, UGC				

3.12 No. of faculty served as experts, chairpersons or resource persons

59

3.13 No. of collaborations

International

National

Any other

3.14 No. of linkages created during this year

3.15 Total budget for research for current year in lakhs:

From funding agency

From Management of University/College

Total

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	4
	Granted	Nil
International	Applied	Nil
	Granted	Nil
Commercialised	Applied	Nil
	Granted	Nil

3.17 No. of research awards/ recognitions received by faculty and research fellows  
Of the institute in the year

Total	International	National	State	University	Dist	College
27	9	14	4	110	----	----

3.18 No. of faculty from the Institution  
who are Ph. D. Guides  
and students registered under them

156

600

3.19 No. of Ph.D. awarded by faculty from the Institution

88

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones):

JRF

45

SRF

25

Project Fellows

15

Any other: **TA**

78

3.21 No. of students Participated in NSS events:

University level

620

State level

National level

International level

3.22 No. of students participated in NCC events: **Nil**

University level

State level

National level

International level

3.23 No. of Awards won in NSS:

**Nil**

University level

State level

National level

International level

3.24 No. of Awards won in NCC:

**Nil**

University level

State level

National level

International level

3.25 No. of Extension activities organized

University forum

35

College forum

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NCC

---

NSS

14

Any other

55

### 3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

#### **I. INTERNATIONAL ACTIVITIES**

**FORMULA ONE RACE CAR:** One of our final year students Mr Raghav Bahadur Saxena has won the Randstad F1 contest in association with William F1 and as a consequence of which he has been awarded a prize to visit the William F1 faculty at Grove, United Kingdom. All the expenses for his visit from November 5-15, 2013 will be borne by the hosts.

#### **II. NATIONAL ACTIVITIES**

**ARANYA 2013:** Aranya – the National Techfest – was held from November 22-24, 2013. Since its inception, Aranya has successfully emerged as a cradle for innovation in every intellect of human mind providing an environment of competition and opportunities. The highlights of mega fest are technical events of different disciplines, star nights, comedy nights, 3D shows and guest lectures. Adventure sports, various workshops and Shaurya Gatha will create a zing factor. Aranya 2013, with a plethora of events ranging from technical events, book fair, edu-fair, adventure sports, seminars, guest lectures, literary and management events, it is a one stop for students to showcase their potential and at the same time enhance their capabilities. Amidst all the glitz and fanfare, Aranya 2013 fostered its prime objective of providing a rich learning atmosphere with vigour and zeal. The campus of Thapar University was abuzz with the grand culmination of knowledge and entertainment, redefining college festivals. It saw a participation of about 20,000 students from various universities of India. Moreover there were various informal events like Immolation, paintball, stunt show etc. which attracted the crowd.

#### **SOCIETY FOR PROMOTION OF INDIAN CLASSICAL MUSIC & CULTURE AMONGST YOUTH (SPIC MACAY):**

A cello performance by Saskia Rao De Haas accompanied by Durjay Bhaumik on Tabla and Asha McCarthy on TAMPURA was organized in the Thapar University Campus during FROSH WEEK by SPICMACAY in the University Auditorium on July 31, 2013 at 5:15pm.

Saskia Rao-de Haas is a virtuoso cellist and composer from the Netherlands who is based in India. She has introduced the Indian cello to North Indian classical music, a step hailed as truly pioneering. It requires great courage and tremendous talent to introduce an instrument to a domain that has had no interaction with it in the past. As a composer, she is eminent at bridging the Western and Indian classical music traditions. In addition to her prestigious status in India, Saskia is an accomplished Western classical cellist. She also plays folk music from Eastern Europe and composed music for dance, film and theatre.

In its efforts to make youth aware of its culture, Society for Promotion of Indian Classical Music and Culture Amongst Youth (SPICMACAY), TU, organized a cultural exhibition on January 30, 2014. The exhibition included a large number of artefacts and other objects related to Indian culture.

Coins, stamps, age old utensils and portraits of famous Punjabi poets and writers were some of the objects on display. The exhibition also included the paintings of regional painter Sukhpal Singh, who once again after 16 years came to Thapar University to display his paintings. His work shows how closely our culture and art is related and how one can be, in the hands of a talented artist.

A Qawwali performance by Ustad Meraj Ahmed Nizami has been organised by SPIC MACAY on February 7, 2014 to promote Indian Culture among youth.

## **SPORTS**

- Thapar University Basketball team (Men) has won the First Rann Neeti '13 Basketball tournament held at IIT Mandi (HP) from September 21 to September 22, 2013. A total of eleven teams from different IIT's, NIT's and TU had participated in the competition. Our University team won all their matches to reach the final. Our boys won the final by beating the hosts IIT, Mandi by a huge margin.
- Thapar University teams of Chess and Badminton (both men and women) also participated in Inter-Engineering tournaments held from 4th to 5th October, 2013. All four teams have had a podium finish. The Chess, men's team won the gold medal and the women's team finished runners up, whereas, both the badminton teams finished runners up.
- The Basketball (Girls) team of Thapar University created history by winning the First Invitational Basketball Tournament held at Jaypee University, Solan HP. In fact, this is for the first time that a girls' basketball team from our university has participated in any competition. Our Lawn Tennis (boys and girls) and TT (boys) teams also won Gold medals, and TT (girls) and Football (boys) Team returned with Bronze Medals in the Inter-Engineering tournaments organized by the Inter technology Universities Sports Association (ITUSA). The lawn Tennis tournament was organized at Thapar University Patiala, the Table tennis tournament was held at NIT Kurkshetra and NIT Jalandhar hosted the Football competition, from 30th to 31st Oct, 2013.
- Our Cricket (Men) team got 2nd position in the Inter Engineering Cricket Tournament held at PEC Chandigarh from 25-27 April 2014.
- Our faculty Badminton team got 2nd position in the 1st Inter Engineering Badminton Tournament held at PEC Chandigarh from 25-27 April 2014.
- TU organized a friendly T-20 cricket match between SALIENT BUSINESS SOLUTIONS (AN AVANTHA GROUP COMPANY) AND Thapar university faculty and students mixed team and TU won this match.

## **III. SOCIAL ACTIVITIES**

### **National Service Scheme (NSS)**

- NSS organized a tree plantation camp on July 29, 2013. About 80 trees were planted at three venues in the university Campus. Nearly 400 students participated in this campaign.
- NSS organized an introductory highly motivational lecture and presentation on "The Organization, Importance and Benefits of National Service scheme" on July 30, 2013. The volunteers introduced the first year students to the organizational structure of NSS and explained the importance and benefits of community presence with the help of a presentation. The two hour lecture ended on a high note in order to contribute to community service.
- NSS organized a tree plantation camp on August 14, 2013, in which 30 Mango plants were planted.
- NSS organized a special camp on the theme 'Care and Share' from September 2-8, 2013. NSS organized an NSS awareness lecture in the TU auditorium on 28 July, 2013.
- NSS organized a tree plantation camp on July 29, 2013. About 80 trees were planted at three venues in the university Campus. Nearly 400 students participated in this campaign.
- NSS organized an introductory highly motivational lecture and presentation on "The Organization, Importance and Benefits of National Service scheme" on July 30, 2013. The volunteers introduced the first year students to the organizational structure of NSS and explained the importance and benefits of community presence with the help of a presentation. The two hour lecture ended on a high note in order to contribute to community service.
- NSS organized a tree plantation camp on August 14, 2013, in which 30 Mango plants were planted.

- NSS Units organized a Seminar on Eye Banking & Diabetic Retinopathy by doctors of Rajindra hospital, Patiala on September 6, 2013 (Friday) from 3 p.m to 5 p.m in C-HALL.

**NSS One week Camp:** The objective of the camp was to celebrate the foundation week of Thapar university, i.e. from 08-10-2013 to 15-10-2013. Therefore the aim of the camp was to plant tree and clean the Nirvana meditation park of Thapar University. The camp duration was divided into four phases. In first phase 30 trees of Amaltas were planted on the side of the road close to old Polytechnic building. 20 trees of Mahogany were planted near the synthetic athletic track.

**Blood Donation Camp:** A blood donation camp was organized by NSS, Thapar University Patiala on May 13, 2014 in auditorium. This was a one day event. The team of doctors and assistants headed by Dr. Sukhwinder Singh had come from Rajindra Hospital Blood Bank. They guided the volunteers and donors about the prerequisites and procedure. The students, staff and faculty members were there among donors. Both male and female students had participated in the event with a very high motivation. A total of 32 units of blood were collected.

### **INSTITUTION OF ENGINEERS (INDIA), THAPAR CHAPTER**

Thapar Chapter conducted a guest lecture cum scholarship test on 1st April, 2014 venue F-108. A student interaction program was conducted by GATEFORM Educational Services, founded by alumni of the IIMs and the IITs. They motivated the students to think on the path of their future career and guided the students about GATE. The lecture was then ended with a scholarship test of an hour which made the students familiarized with the GATE pattern. Around 50 students participated in the guest lecture and got to learn a lot.

**ADVENTURE CLUB SOCIETY:** A visit to Rishikesh was organized.

### **LITERARY SOCIETY, THAPAR UNIVERSITY**

- Literary Society is dedicated to providing a platform for literary expression and creativity to the students of Thapar University. With its eight sub-societies which include ones focused on writing, dramatics, quizzing, to name a few, the student audience the society caters to is vast and varied. Acumen 2014 was organized from April 7 to April 10, 2014, proved the crowning glory of literary activities in the even semester as teams were grouped according to hostels, this time to the theme of comic superheroes. The four days of the festival saw enthusiastic participation from all four teams in as many as thirty events spread across four days, which included debates, plays, parody plays, quizzes and the like. One feature that set apart Acumen 2014 was the introduction of cosplays – which involve dressing up as comic book characters and performing – as a part of publicity for the very first time.
- Thapar Quizzing Club's organized the event, Ex-Quiz-Eat, on March 25, 2014 held at Kababchi, in which winning meant a free meal for vying teams.
- The Scrabble Tournament organized by Muse, on March 28, 2014, saw word connoisseurs pitted against each other in a classic game of Scrabble. Two elimination rounds saw the top six congregate at Barrista, in which games went down to the wire to decide the final four.
- Poetry Society's Treasure Hunt organized on March 26, 2014, which involved putting together a meaningful poem by collecting its parts using clues scattered across campus proved a popular event which tested the participants' resourcefulness and ingenuity. Book coupons were given to winning teams.
- Cineastes, the movie-making club, organized a workshop on March 29, 2014, to bring home to nascent moviemakers the finer aspects of film-making and also showcased existing home-grown productions to serve as guideposts for amateurs.



## **SCORE SOCIETY**

Society for the promotion of chemistry research and education (SCORE), School of chemistry and biochemistry Thapar University organized a seminar on June 19, 2014. Seminar Title: Accessing complex topologies via Dynamic Combinatorial Chemistry, Presenter: Dr. Dan G. Pantos, University of Bath, UK

## **TUMUN SOCIETY**

In March 2014, an INTER-MUN was organised which saw large participation from the students within University and outside alike. There was an active participation from school kids too. What separated TUMUN 2014 from the rest of the MUNs was the sheer creativity and the indigenouness of the councils. This time there were 4 councils namely;

1. United Nations General Assembly
2. All India Political Parties' Meet
3. United Nations Security Council, and
4. The Mafia

With an individual agenda for each council the MUN witnessed fierce debates on various topics sensitive to political entities and their vested interests. A huge spectacle, TUMUN notched a bit further with international participation.

## **UDAAN 14 (Cultural Fest)**

God does not discriminate between any sections of mankind. He has distributed immense talent to everyone “, doing this quote a good justice UDAAN’14 was organized on Wednesday (16th April 2014) by the Pratigya society. Setting another of the many milestones. The event started with the ‘Deep Prajwalan’. To put a stamp on the efforts put up to stage this event, the jam packed auditorium erupted in applause and cheers after every performance. Kudos to the organizing committee to have worked really hard and encourage these kids who did utmost justice to an event of this scale. Thus we take the liberty and pride of calling these kids not underprivileged rather hard working with immense talent.

## **IET Student Chapter**

- Level-1 Technical paper presentation “Present Around The World ( PATW-2014) competition undergraduate student-10.3.2014 for Post graduate students- 28.3.2014
- The winner and runner-up in both the catogorises have participated in Level-II of competition held at IET, Delhi Network, Paschirth Vihar , New Delhi on April 18, 2014.
- 2 Haltday workshop on ‘GAP’ Coraduate Amstance Propgram organsied by IET ( India at TU, Patiala on April 22, 2014. The speaker of the workshop Mr. Pragun Sood on IET (India) official.

## **PARYAVARAN WELFARE SOCIETY (PWS)**

- Inauguration of water Supply Tanker: For watering to the planted trees planted in the different location of Patiala, PWS purchased his own tanker. Inauguration of this tanker was carried out on 23rd July 2013
- Tree Plantation Drive was carried out at Central jail, Patiala on 25th July 2013
- Tree Plantation Drive was carried out at Civil Lines, Patiala on 28th July 2013
- After the Uttarakhand tragedy the whole nation united to help the flood victims. We, on behalf of Paryavaran Welfare Society did the same by sending flood relief material.

- Tree Plantation Drive was carried out at Mardheri Village , Patiala on 9th August 2013
- Tree Plantation Drive was carried out at Jasowal Village, Patiala on 15th August 2013
- Tree Plantation Drive was carried out at Rongla Village, Patiala on 19th August 2013
- Tree Plantation Drive was carried out at Chuaharpur Jattan Village , Patiala on 25th August 2013
- Tree Plantation Drive was carried out at Central divider Sirhind Road, Patiala on 26th August 30th August 2013
- Tree Plantation Drive was carried out at Central divider Sirhind Road, Patiala on 5th, 10th, 14th, 18th, 21st and 23rd September 2013
- Tree Plantation Drive was carried out at Police lines, Patiala on 16th October 2013
- Tree Plantation Drive was carried out at Central divider Bus stand, Patiala on 19th October 2013
- Tree Plantation Drive was carried out at Maharaja Yadvandra Enclave, Patiala on 23rd October 2013
- PWS organised blood donation camp at Thapar University, Patiala on 25th October 2013
- For the benefit of birds, we have installed 50 pieces of Artificial nests for birds in the different location of Thapar University on 31st October 2013
- PWS carried out Patiala Cleaning Campaigns in the different location of Patiala like: Passi road, Bhupindra road and vikas vihar on 11th, 17th and 22nd January 2014.
- In the month of February 2014, PWS carried out Patiala Cleaning Campaigns in the different location of Patiala like: PRTC workshop on 11th February and Alongside Central jail from 12th February to 27th February 2014.
- PWS carried out national science day celebration on 28th February 2014 at Science city Kapurthala.
- In the month of March 2014, PWS carried out Patiala Cleaning Campaigns in the different locatio of Patiala like: Bhupindra road, Patiala (from 1st March to 5th March 2014), Government poultry farm (from 7th to 8th March 2014), Government Rajindra Hospital, Patiala (from 9th to 17th march 2014) and PRTC workshop (from 29th to 31st March).
- PWS carried out World Water day celebrations on 22nd March 2014 at Thapar University, Patiala.
- PWS carried out Tree plantation drive at Government elementary Multipurpose school, Patiala on 26th march 2014.
- To create awareness to save energy PWS carried out Energy awareness campaign on 27th March at Thapar University, Patiala. During this even,t we had distributed 60 CFL tubes to the needy staff members of TU. After CFL distribution, we had carried out TU Black-out and candle light march.
- To create awareness among students about environment, we had carried out Expert talk by Dr. Paramjeet Singh on 31st March 2014.

## **SOMIE**

QuizMania {Tetrix}: QuizMania is a time restricted quiz based on students' knowledge regarding the latest happenings about the Mechanical Engineering stream and their overall knowledge about machines and companies. The event took place on the 23rd November, 2013 in the academic block of college campus. There was an overwhelming response to this event and a good turn up from the students as a healthy number of students (around 50) participated in this event and after some close competition, emerged the winners as follows:

Soap cutting: The event was a full day event where students participated in great numbers and with great enthusiasm. The publicity started three days in advance with registrations numbering over 80. The event started at about 10.00 a.m. on the morning of 23rd November, 2013 and continued till the evening.

Engine assembly: The event generated a wave of enthusiasm in the students and a keen interest among them as they witnessed a showcase of an automobile engine being dissembled and then assembled again in front of them. The interest generated among the students was worth mention and thus the event received good recognition from the students.

## **ROBOTICS WEEK**

5 days lecture by covering various technical topics required to build any working model. 2 hours workshop each on microcontroller, microprocessors, introduction to robotics, basic embedded language, coding and computer languages and sensors. Various teachers from mechanical and electronics & communication dept. gave lectures. Last day practical exercise to make robot was conducted. Great learning experience for us regarding practical knowledge.

LEGO BOT WORKSHOP: 3 workshops of this kind have been conducted in this year. Lecture by Dr. Ashish Singla on lego bots. Practical sessions assembling kits. Coding of the assembled kit to make line following robot.

## **SPIRITUAL SCIENTISTS' ALLIANCE (SSA)**

- SSA organized art of living intro talk with Dr Sangeeta, ENT specialist from Rajendra hospital to learn secrets of health, happiness and stress free life through breath on September 25, 2013.
- Vote for a better India was an event conducted by the SSA on Oct. 9, 2013. The main aim of this event was to strengthen democracy by making aware the students about the voting rights & its importance. The event consisted of a flash mob, a musical concert by famous singer Nitin Dawar consisting patriotic songs in the auditorium & followed by candle light march up to COS building. About 300 people participated in the whole event. Many of the faculty members including DOSA made this event a great success by giving their benign presence.
- Spiritual Scientists' Alliance (SSA) organised an enlightening talk SPIRITUALITY IN PRACTICAL LIFE, by world famous BK SURAJ BHAI on October 14, 2013.
- SSA organized the Gurmat Smagam to celebrate Agaman Purab (Prakash Utsav) of Shri GURU NANAK DEV JI on November 20, 2013.
- The Year 2013-14 had been quite eventful for Spiritual Scientists' Alliance. This Students' body believes in studying spirituality in a scientific manner, as well as studying science in spiritual way. This body aims at providing spiritual solutions to material problems. The year saw the following major activities:
- A regular follow up sessions and youth empowerment seminars by Art of Living
- Youth concert and candle light march by VOLUNTEERS FOR BETTER INDIA, where NITIN DAWAR inspired the youth to work selflessly for the country
- 22nd October 2014 will go in the annals of Thapar University, when the campus was blessed by none other than His Holiness Sri Sri Ravi Shankar himself
- SSA organised a declamation contest on SWAMI VIVEKANAND: AN ICON OF IDEALISM FOR YOUTH TODAY in the month of October
- BK Suraj Bhai enlightened the Thaparians by his discourse SPIRITUALITY FOR PRACTICAL LIFE, again in the month October

- Students are regularly getting counselling support under SSA's SWAROOP SESSION
- Masters from HARE KRISHNA Movement are also visiting the campus almost on weekly basis to guide and motivate the students to adopt a spiritual way of life
- Last but not the least, SSA has procured 42 Life Guidance books to be lent to all Thaparians on FULL REFUND OF SECURITY Basis
- SSA aspires to continue with its mission with the help of its volunteers and with the support of Thapar Management

## **YOUTH UNITED**

Members of Youth United (Patiala Chapter) attended the National Youth Summit 2013 organised by Art of Living Foundation in association with Times of India in Punjab University, Chandigarh. The summit included special experts from various renowned and reputed organisations such as UNAIDS, HEROES Project, INERELA+ , IICA, UNFPA, FPA India, National Drug Dependence Treatment Centre, AIIMS, UNICEF, UNGCNI & DRISHTEE.

Youth United (Patiala chapter) organized a visit to Pingalwada old age home on 27th July, 2013. The visit was refreshing for the old and mentally challenged people. They had a lovely interaction with the YU team members and the innocent smiles of children were the certificate of success for the team.

Youth United celebrated YU week from 6th – 8th August, 2013, the event heads for which were Samraggi Biswas (Chemical, 3rd year) and Ankur Wasdev (, 2nd year). This 3 day event flagged off the year for YU. YU week is basically for introducing YU to the fresher's of college. This year YU supported the theme "EMPOWERMENT OF WOMEN".

Youth United added another milestone to its philanthropist activities when it successfully initiated the "Joy of giving week" in its campus on 3rd October 2013 with the theme of "charity with fun". The Joy of Giving Week (JGW) is a "festival of philanthropy" that aims to become a part of the Indian ethos, with the Week being celebrated every year from 2nd October to 8th October by engaging people through "acts of giving" - money, time, resources and skills - spanning the corporate, NGO and government sectors, schools, colleges and the general public .

Youth United team makes the trip to Pingalwada every semester. In the even semester the trip is usually made around the Republic Day. Unlike the previous instances, this time the trip was made open to all students in Thapar University. The Youth United team visited Pingalwada on 25th January, 2014. The event was coordinated by Ashish Jainani (Computer Engineering, 2nd Year) and Navjot Kaur (Electrical, 2nd Year). Along with the Youth United team, there were an overwhelming number of students who volunteered for the trip to the Pingalwada ashram. The trip started around 10:15 am. The bus had to make two rounds to ferry the students.

Smiling Future, an initiative by Youth United Patiala chapter; spread hundreds of smiles on the faces of specially abled on the 11th-12th of February. A two day event gave a platform to differently abled children to showcase their talent on the stage of Thapar University. The event saw to participation by five schools with almost a hundred participants. On Day 1, a painting competition was held which concluded with the students of Thapar itself voting and selecting the best artwork. On Day 2, stage performances comprising of group dance, solo dance performances, dancing verses and singing left us spell-bound. It is commendable to see them overcome all physical and mental challenges and perform at par with those who are blessed with goodness health.

YU Public Health Mission (PHM) aims to aware the underprivileged population about various issues concerning health and eventually providing them with solutions to health related problems through self-

initiated camps, drives, dispensaries and hospitals. This Year, Youth United organized a free health camp under its Public Health Mission in 'BrijApahajAsharam' (properly known as Pingalwara) on 26 March, 2014. The health camp was organized in association with Columbia Asia. Dr. Gurdarshan Singh, MBBS, Medical officer from Columbia Asia checked around 70 inmates of asharam and prescribed them medicines according to their disease/ problem.

With a vision in mind and a dream at heart, Lakshay, the brainchild of the Youth United Society, Patiala, was established in March 2007 as an initiative to enlighten the less privileged kids with the benefits of primary education with the support of students (from the University itself) who act as tutors for the underprivileged and specially-abled who wish to pursue education but face hassles and resistance from their immediate society at large.

YU not only caters to the under-privileged but also to any troubled mind. Personal counseling sessions by Aacharyamitra Paroksh Sujay are frequently held where students are free to share any problem and seek peace of mind. In the year of 2013-2014, these sessions were held four times each for a period of 2-3 days.

### **SATURNALIA 2014**

As promised by the core committee of saturnalia 2k14, this year, was able to deliver what it has promised. Basic theme this year was colors of India. Throughout the festival, everywhere an attempt was made to spread indianness. Saturnalia started on April 18, 2014 on the inaugural night students performed giddha, followed by rock band performance by Thapar University students, followed by fashion show whose theme was Bohemian and Festivals of India.

On the second day of saturnalia 2k14 i.e April 19, 2014, throughout the day, there were competitions to name a few classical dance, giddha, bhangra, western dance, dramatics. Every evening of the fest was made unforgettable by the setup of 'Sat City'-the fete area. On 18th April, Crossblade was organized in which various artists including Gippy Grewal, Zarine Khan, Kaur B performed. Star night-Farhan Saeed On 19th April, Farhan Saeed of Jal Band fame performed in Thapar University alongwith his band. The performance was scintillating and made the crowd sing to his tunes.

### **MUDRA SUR NIGHT**

SUR, the music night of Thapar University is the night filled with the grandeur of classical and western music coming together. A night of evergreen classical Carnatic music, of adrenaline pumping Rock n Roll, of flabbergasting instrumentals, and many more. It is a night when all the best musicians of our college come together to pool their individual talents and present a showcase of the grandest of proportion creating something very unique and inspiring altogether. The ever-growing popularity and following among the students of our college makes this the most must-see event of Thapar today. In SUR, around 70 performers preform over a span of 3.5 hours, (among them 20 for the first time), as vocalists or playing various different instruments ranging from the likes of western instruments such as guitar, keyboards, flute, violin, drums to the likes of classical Indian instruments like Sitar, harmonium, table, dholaketc ; making this one of its kind event at Thapar University.

### **MICORSOFT STUDENT CHAPTER**

Series of events were conducted by Microsoft Student Chapter, TU under the fest name INSPIRUS 2k14. Span for the fest was from 3rd February, 2014 to 12th February, 2014. The detail of events organised under INSPIRUS 2k14 is as follows:

- 1). Workshop on Ethical Hacking: The workshop was organised on 3rd and 4th of Feb. 2014 by Mr. Chetan Gandotra, and Mr. Rishabh Arora (Titled as India's most secure coder by EC council).

- 2). Audio Visual Quiz: Questions from general knowledge and current affairs were included.
- 3). Brain-Wizards: Logical and analytical reasoning with speed of solving mathematical problem was tested.
- 4). Compu-Quest: The question levels were set up separately for each year. The quiz was based on pure technical knowledge in the computer science field.
- 5). Windows 8 Workshop: Many windows 8 tips n tricks were shared by Ms. Khushboo Goyal (M.E.). The advanced settings using codes and tweaks were demonstrated live.
- 6). NNSC Workshop: Microsoft Student Chapter in association with ACM IIT Delhi conducted a workshop on National Network Security Championship on 8th and 9th.
- 7) Cyber Pirates: The blockbuster online treasure hunt, a hit between students, was conducted for the sixth time in the university which saw a participation of over 500 students. It started on 9th February and lasted till 12th February. The website received over a 1 Lac views.
- 8) LAN Gaming: Games like NFS, FIFA, Counter strike and mind games like Chess were included in this event on 11th February.
- 9) Talaash: The event was conducted in C-Hall on 12th February in which some good projects related to the domain of games, applications (mobile & desktop) and research projects were showcased.
- 10) Code Master: The prelims were conducted on 11th February 2014, as an online test that constitutes multiple choice questions. The coding round was held next day i.e. 12th February.
- 11) Computer Science & Engineering Department, Thapar University has signed MoU with Spoken Tutorial Project IIT Bombay. Spoken Tutorial Project is an initiative of National Mission on Education through ICT, Government of India, to promote IT literacy through Open Source Software. On 22nd April 2014, a workshop on LATEX has been conducted by Microsoft Student Chapter, Computer Science & Engineering Department, Thapar University in collaboration with Spoken Tutorial Project..
- 12) Ethical hacking workshop was organized by Mr. Sahil Baghla from EH1 INFOTECH, Chandigarh on 26th - 27th April 2014 in C-Hall, in coordination with Microsoft Student Chapter, Computer Science & Engineering Department. Over 25 students from B.E. course has attended this workshop.

### **IICChE Society**

1. Society Fair , DATE: 16-08-2013, TIME: 5:30 P.M. - 8:00 P.M.

DESCRIPTION – In the society fair we introduced our society to the new batch of 2013-2014 and organized some informal games like oral quizzes related to periodic table and other dealt with crosswords related to chemistry to have better interaction with them. Prizes were distributed to the winners.

2. Quest for Fun: 22-11-2013 ,Time: 5:30 P.M. – 7:30 P.M.

Description – this was a fun event being organized under Aranya 2013 in which students were made to play the game of snakes and ladders by rolling the dice only if they answer the question being asked correctly.

3. Chemical X , Date: 23-11-2013 ,Time: 10:30 A.M. – 1:00 P.M.

Description – this was a 2 round event being organized in the organic chemistry lab.

4. Corporate Catalyst: Date: 22-24-Nov-2013



Description: For the first time an online event was organized by the IICChE society. Under this event an Industrial Design problem was put up on the website of Aranya 2013 and its facebook page.

5. Hot Ice Pyramid: Date: 24-11-2013

Description: hot ice pyramid was a unique event under which a pyramid of sodium acetate was to be constructed. Sodium acetate has a unique property of solidifying quickly after heating as soon as it is exposed to a temp. of about 20-25 Celsius.

### **FAPS Events (2013-14)**

- Arts and Photography Society (FAPS)- a Society, rather a tradition of Thapar University is always on the forefront to catch the amateur artist and train them to converse through the medium of art. Art enthusiasts are always active throughout the year. One such masterpiece created by them is Graffiti on the Auditorium Wall (Size:)
- FAPS kept its tradition of mentoring the youngsters through a workshop on glass painting in September 24, 2013 and a Photography workshop on October 23, 2013. FAPS also organised a series of workshops on Photoshop and Cartooning and Caricature organised during Nov 23- 24, 2013. Senior students of FAPS conducted it for younger artists.
- FAPS also conducted a Water Painting workshop by a renowned artist, Mr Bharat Bhushan on November 23, 2013. The workshop was attended by 25 students. They later on tried it on their own and Mr Bharat Bhushan helped them in by teaching through practise. It was appreciated by students and they infact requested us to conduct more such workshops in future.
- Water Painting workshop by a renowned artist Mr Bharat Bhushan and Mehndi competition
- In keeping with the spirit of Technical Fest FAPS also participated enthusiastically by organising Rangoli, Tatoon making with techno- cultural themes. The big draw of crowd was the big picture, which was tribute to Sachin Tendulkar, the cricketer who stole the hearts of the Indians and Thaparians are no exception.
- FAPS organised a paper model making competition during April 18-19, 2014. It also organised photography competition and calligraphy and painting workshop to amateurs.

### **NOX SOCIETY**

As part of the western dance society of Thapar University, NOXians organised a 3 week dance workshop of Renowned Choreographer Harshvardhan Bhan in October 2013. They further participated and reached the Semi-Finals of Spectrum, Western Dance competition in Rendezvous, organised by IIT Delhi in October 2013. Continuing the Legacy of our seniors, NOX Night was organised in University Auditorium in February 2014 with some amazing dance performances both group and solo for Thapar Audience. NOX boys also participated in Spandan, Western Dance Competition organised by Delhi Technological University in February 2014. Apart from these, NOX members have been participating in Intra University events as well including MUDRA, IZHAAR, ELIXIR, ACUMEN etc. A special mention to Aviral Singh of Computer Science, 2nd Year, he won the Solo Dance competition organised in Saturnalia, our annual inter university cultural fest.

### **ECON CLUB**

Econ Club would organized an expert lecture by Dr Ash Narayan Sah (Assistant Professor, School of Behavioral Sciences and Business Studies) regarding the Current economic situation and the stock markets on 5th September 2013 D 207 Thapar University.

Econ club organised an Informal meet 12 sep, 2013 At COS Complex to introduce the society to the students. A quiz treasure hunt followed by marketing game was held to bring the students aware of

competitiveness in the world of economy. The students were to purchase a pack of goods and sell them at a profit to takers. One with highest profit was declared a winner. There were ten teams of three students in each group. It got an enthusiastic response.

Econ Club successfully organized a seminar on Young leader's Programme (YLP) of Indian School Business (ISB) on 3rd March'14 at TAN Auditorium, Thapar University. Around 75 students attended the seminar, which was aimed to give an introduction to ISB's coveted YLP.

The YIP is a unique program for highly talented undergraduate students in pre final year of graduation. The students selected to this programme will get a guaranteed admission to a future class of the ISB's PGP.

'The Economist', held between 26th and 29th of March 2014 as the first ever Econ-fest of Thapar University was organised by Econ Club with a motive of making the technical undergraduates more and more interested in this area. Econ Club also worked as the Chief Marketing Partner with the 'School Of Behavioural Sciences and Business Studies' on the conference on 'Changing perspective and paradigms in business and behaviour sciences', with which 'The Economist' was held in alliance.

### **IETE STUDENTS FORUM**

IETE student's forum organized the event ARITHMANIA on 08/oct/2013(Tuesday) in auditorium (THAPAR UNIVERSITY). Arithmania is a general mathematics quiz with mental ability and analytical questions in which active participation is seen by the university students every time. The duration of the quiz was 45min. This time also a huge participation of 125 teams was registered in the event and each team comprised of 2 members. 2 top scoring teams were declared as the winners and prizes were distributed respectively.

IETE student's forum organized a 2 day robotics workshop named - ISENSEO ROBOTICS WORKSHOP. In the Thapar University campus on 12/10/13(Saturday) - 13/10/13(Sunday). Professional personnel from ARK-TECHNOSOLUTIONS were called upon to teach the enrolled students. ARK Techno solutions is a National Leader in Educational Robotics in India and trains technical students for courses in embedded systems, telecom and educational robotics.

IETE student's forum organized the event ARITHMANIA on 27/jan/2014in auditorium (THAPAR UNIVERSITY). Arithmania is a general mathematics quiz with mental ability and analytical questions in which active participation is seen by the university students every time. The duration of the quiz was 45min. This time also a huge participation of 125 teams was registered in the event and each team comprised of 2 members. 2 top scoring teams were declared as the winners and prizes were distributed respectively.

IETE students forum organized AT-megnomania on 12 Feb. 2014 in C- Hall and its adjoining room . Aptitude questions were asked , but not in a conventional paper based format instead a LCD interfaced with AT- MEGA 8 /16 microcontroller was used to display the questions . Participants had to record their response through a numeric keypad like that of a mobile , which was again interfaced to the microcontroller . This event was the most unique event in the history of IETE and attracted more than 100 teams ( each having 3-4 members ) . In all about 350 students participated in this event .

CONCURSO was conducted by IETE students' forum on 20th February 2014. The event came up with more than 80 participants .The event was based on Audio Visual quiz format . Each team comprises of 2-4 members. The quiz was conducted in two levels. In 1st level 25 questions were projected on a screen and teams were asked to pen down the answers on a sheet. Top 4 teams were selected for level 2. Level 2



comprises of 4 different rounds. We also had an open general question answer round for audience. Based on the final scoring the top 2 teams were awarded prizes.

IETE students' forum organized the event THAPAR CRUCIBLES on 25/march/2014 (Tuesday) in C-hall (THAPAR UNIVERSITY). Thapar crucibles is a general business quiz with general knowledge and analytical questions in which active participation was seen by the university students. The quiz was divided in 2 rounds. Top 4 teams of round 1 were selected for 2nd round. Each team comprises of 3-4 members each. 2 top scoring teams were declared as the winners and prizes were distributed respectively.

#### TECHNICAL PROJECTS UNDERTAKEN BY THE MEMBERS

##### 1.) EVENT NAME: UNNAT (IIT BOMBAY 3rd Jan TECHFEST 2014) - IN TOP 14

The students submitted the idea of a glove capable of detecting obstacles making it easier for handicapped people to walk. The team made its way through the top 14 ideas across all over India.

##### 2.) EVENT NAME: Polaroid (IIT BOMBAY 4th JanTECHFEST 2014)

The students made an autonomous bot based upon Image Processing for the competition. The task was to build an autonomous robot that will detect the color and transfer the cubical block from one place to another.

##### 3.) Event Name: - Magneto (IIT Bombay 3rd JanTechfest 2014)

The students made a gesture controlled robot for the competition. The task was to build a robot controlled solely by the wrist and transfer the tennis ball from one court to another.

##### 4.) EVENT NAME: DIRT RACE (SVIET - Chandigarh- AHVAN 6-sept 2013)

The event was Dirt Race. The students built a manually controlled wired robot which could traverse the track- full of mud and comprising of various obstacles. These two members reached the quarter finals of the event and secured 8th position.

##### 5.) EVENT NAME: TELEPATHIC LINE-FOLLOWER (UIET - AAVISHKAAR 12 -sept 2013)

In Telepathic line follower the members built an autonomous robot based on IMAGE PROCESSING which had to follow a line of a particular color out of many colored lines and the team made its way all through the semi finals and Secured 2nd position.

##### 6.) EVENT NAME: MAZE SOLVER (NIT JALANDHAR)

They made an autonomous robot which could traverse its path through a maze on the track. The team could make its way through the semifinals of the event and were among the top 6 teams.

##### 7.) EVENT NAME: ESCAPE TUNNEL (IIT DELHI - TRYST 27 feb 2014)

They made an autonomous robot which could traverse its path through a maze on the track. The team Secured 2nd position.

##### 8.) EVENT NAME: TECH EXPO (MNIT JAIPUR - blitzschlag '4 april 14)

They presented a glove capable of detecting obstacles making it easier for handicapped people to walk. They secured 3rd position.

##### 9.) EVENT NAME : BRANCH OUT ( PEC -2014)

A robot based on line follower principles was to be made these first year members worked hard for this project and secure 1st POSITION in the competition.

10.) EVENT NAME : FAST AND FURIOUS ( PEC - 2014 )

A wirelessly controlled robot was to be made which could traverse its path through a complicated track and complete the track in minimum amount of time, The members of the team secured 3rd POSITION In the overall competition.

11.) TECHFEST - NIT-Kurukshetra ( 28- march 2014)

A wired controlled robot was to be made which could traverse its path through a maze full of obstacles , team which could complete the track was the winner . Team from our Society Secured 3rd Position .

Visual Bulletin came into existence as a new society in Thapar University this Academic year. During the Academic year 2013-2014 Visual Bulletin organized a number of workshops, training sessions and lectures on visual communication. Visual Bulletin organized 6 sessions of workshop on Photoshop, photo editing, poster making and graphic designing, 1 each on video editing and object based sketching. Visual Bulletin organized 2 dedicated workshops on introductory training of 3D Modelling and Maya Software.

Working on the vision of Visual Bulletin to digitalize the mode of publicity in Thapar University through photos and videos, Visual Bulletin covered many events of societies and fests. After movies of Mudra Night and Symphony the DJ night during Aranya were made. 3D model of Thapar University's Main Building and 3D logo of Thapar University's logo were developed on Maya 3D software. The technical team also delivered Thaparlympics its very own logo created on Maya which was highly appreciated by the President of Sports, Director of Physical Education and the students of Thapar University.

Our quality of work being of very professional standards was appreciated by the administration and Visual Bulletin took a leap in its journey by getting declared as Official Branding Society and got honoured with bigger responsibilities. Visual Bulletin launched the official platforms on Facebook and YouTube and flooded the platforms with content related to Thapar University which included videos like Campus video, History video, Annual Sports Meet Video, logo reveal and exclusive photographs of Dera Bassi Campus.

## Criterion – IV

### 4. Infrastructure and Learning Resources

#### 4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	270 Acres	26.29 Acres (Derabassi Campus)	Fees , Income from Research & Consultancy projects, Executive Development Programmes	
Class rooms	81	10(TAN)+20(polytechnic)		
Laboratories	105	20		
Seminar Halls	7			
No. of important equipments purchased ( $\geq$ 1-0 lakh) during the current year.		72		72
Value of the equipment purchased during the year (Rs. in Lakhs)		480.57		480.57
Others: (Expenditure on enhancing computer networks and infrastructures)		277.64		277.64

#### 4.2 Computerization of administration and library

Thapar University, Patiala is in the process of implementing e-solutions software for its academic and other related activities including human resource management and financial management. Academic activities, such as, conduct of mid semester test and end semester examination, central repository of marks and grades of the students, assigning the grades to the students by faculty members and students reaction survey have been implemented using this software. Online facility for registration information, date-sheet, seating plan and duty chart has been provided to all the concerned through Web-Kiosk. On-line quizzes have been started for core courses. Computerized DMCs of students are sent to the parents.

#### 4.3 Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	79652		8225	31.0 Lakhs	91001	
Reference Books			3124			
e-Books	1779				1779	
Journals	4973		102	70.0 Lakhs	5075	
e-Journals			11220		11220	
Digital Database						
CD & Video						
Others (specify):						

<b>(Magazines)</b>	102				102	
<b>Standards</b>	4284				4284	
<b>Print Thesis</b>	2474				2474	

#### 4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	900	12	500mbps with 2800 concurrent internet users	Wifi and wired computer network facility is available all around campus including academic area, hostels, faculty residence, cafeterias and all labs	2 dedicated computer centres	258	15	---
Added	150	4	900mbps and additional 900 concurrent internet users		----	Faculty can purchase computers from faculty developments funds from University	----	----
Total	1050	16	3700 users		2	258+	15	----

#### 4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)

Centre of Information and Technology Management (CITM) has been established in the University after integrating three units, namely, Computer Centre, Centre for Information Super-Highway and University Science Instrumentation Centre. This centre has been established to cater the needs of users involving implementation, maintenance and support activities related to software and hardware; procurement, support and maintenance of various equipments of users.

CITM offers internet access and network services to Thapar University. It has two static leased line connections: 310 Mbps leased line STM-2 for internet bandwidth from Reliance and 1 Gbps leased line of National Knowledge Network (NKN). The Campus-wide Local Area Network (LAN), which currently has 4000 live nodes (wired and wireless), is backboned by Optical Fiber connected with layer-3 and layer-2 switches, structured with CAT 5 and CAT6 cabling.

The CITM has four state-of-the-art computational labs and one server room. CITM Labs remain open from 8.00 AM to 8.30 PM on all working days and from 9.00 AM to 5.00 PM on Saturdays. The computational facility in the Centre includes 10 Dell Power Edge servers and 166 nodes and other peripherals such as one heavy duty Line Printer Lipi6100, Six HP Laser Jet printers. CITM is a member of Oracle Academia Initiative program of Oracle India Ltd, Microsoft Edvantage Program and is also in agreement with Symantec for university wide antivirus facility.

CITM also provides repair and maintenance of Electronic Instruments/Equipment and, PCs and peripherals used in various Laboratories. This centre is contributing in the implementation of ERP software that includes modules financial management, inventory management, human resource management, purchase management, academic activities etc. and its related support to the users of Thapar University. CITM is also responsible for maintenance and administration of Thapar University Website. The main objective of centre is to provide better support and services to the users for their individual as well as collective growth.

4.6 Amount spent on maintenance in lakhs :

i) ICT	27.22
ii) Campus Infrastructure and facilities	549.44
iii) Equipments	19.63
iv) Others	1059.18
<b>Total :</b>	<b>1655.47</b>

## **Criterion – V**

### **5. Student Support and Progression**

#### **5.1 Contribution of IQAC in enhancing awareness about Student Support Services**

The newly admitted students are apprised of the activities of the counseling cell during the orientation program by the Chief Student Counselor appointed by the Director. The department nominates faculty member(s) to this cell on the advice of the Chief Student Counselor. General information is sent out to all students of the department informing them of the services extended by the cell and inviting them to meet the faculty coordinator of the department. The students are encouraged to seek guidance on academic, general or psychological issues, if necessary. Also, semester wise results are forwarded to the Student Counselor of the department by the Academic Section who prepares a list of students whose performance is observed to be below average or poor. Such students are then invited to meet the counselor or any faculty member of their choice on a fixed date and time (changes possible on request of the student). Such meetings are arranged at least twice in a semester and are chaired by the Head of the Department and may include anybody who might be of help to the student. The students are advised to improve performance and are given suggestions or options for clearing their backlog courses.

The advising process is designed to ensure that each student selects a set of courses during each semester that meets minimum grade requirements and which can result in the student making efficient and orderly progress in meeting the academic requirements as listed in the course scheme. The advising process also helps to identify and solve problems the student may be confronting in achieving the educational objectives.

Each department has an Academic Counselor for advising the students. He is also a one point contact for issues related to academic performance or any other issues faced by the students. The students are encouraged to meet him to seek guidance on any matter related to academic performance. Individual faculty members routinely spend time with students during and after classes discussing any issues related to the course, student problems, and advice them on all matters as desired related to academic, placement, industrial training and career goals. Faculty members are often members of co-curricular activities in the department and provide ample opportunities for faculty to answer student questions in an informal environment.

#### **5.2 Efforts made by the institution for tracking the progression**

The University has CILP (Centre for Industrial Liaison & Placement) and counseling cell which provides career guidance, training and placement to the students. The students of Thapar University have taken initiatives at Science & Technology Entrepreneur's Park towards creating awareness on opportunity exploration and to shape a career smartly, ultimately aiming at development of entrepreneurs; exploring inventive dimensions and reaching new heights by organizing sessions related to career and personal positioning of an individual, through a series of interactive hours, personal discussions and individual guidance supported by experts.

Science and technology Entrepreneurs Park (STEP) at Thapar University has been established in the year 2005 jointly by NSTEDB, Department of science and technology, GOI to create Entrepreneurial opportunities and fostering economic growth through business incubation. STEP is involved in creating atmosphere ecosystem for innovation and entrepreneurship between academics and industry, sharing ideas and experiences. STEP provides necessary infrastructure for business incubation and opening new avenues for students, teachers, researchers and managers.

## 5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
4045	1439	648	-

## (b) No. of students outside the state

50%

## (c) No. of international students

5

No	%
5028	82

Men

No	%
1104	18

Women

Last Year						This Year					
General	SCO/ SCST-PB	ST	BC	Physically Challenged	Total	General	SCO/ SCST-PB	ST	OBC	Physically Challenged	Total
773	92	8	26	0	899	1033	85	0	2	2	1122

Demand ratio 1 : 15

Dropout % &lt; 1%

## 5.4 Details of student support mechanism for coaching for competitive examinations (If any)

Nil

## No. of students beneficiaries

NA

## 5.5 No. of students qualified in these examinations: This data is approximate as exact numbers are not available

NET	15	SET/SLET		GATE	50	CAT	100
IAS/IPS etc	5	State PSC	10	UPSC	25	Others	

## 5.6 Details of student counselling and career guidance

The University has a counseling cell which is chaired by a Chief Student Counselor appointed by the Director. Each department/school nominates faculty member(s) to this cell on the advice of the Chief Student Counselor. General information is sent out to all students of the department informing them of the services extended by the cell and inviting them to meet the faculty coordinator of the department. The students are encouraged to seek guidance on academic, general or psychological issues, if necessary.

The semester wise results are forwarded to the Student Counselor of the department by the Academic Section who prepares a list of students whose performance is observed to be below average or poor. Such students are then invited to meet the counselor or any faculty member of their choice on a fixed date and time (changes possible on request of the student). Such meetings are arranged at least twice in a semester and are chaired by the Head of the Department and may include anybody who might be of help to the student. The students are advised to improve performance and are given suggestions or

options for clearing their backlog courses. The advising process is designed to ensure that each student selects a set of courses during each semester that meets minimum grade requirements and which can result in the student making efficient and orderly progress in meeting the academic requirements as listed in the course scheme. The advising process also helps to identify and solve problems the student may be confronting in achieving the educational objectives. The student academic Counselor is also a one point contact for issues related to academic performance or any other issues faced by the students. The students are encouraged to meet him/her to seek guidance on any matter related to academic performance. Individual faculty members routinely spend time with students during and after classes discussing any issues related to the course, student problems, and advice them on all matters as desired related to academic, placement, industrial training and career goals. Faculty members are often members of co-curricular activities in the department and provide ample opportunities for faculty to answer student questions in an informal environment.

The details of these activities are available with each department/school and will be made available during the visit of the expert committee.

No. of students benefitted

Overall 500

### 5.7 Details of campus placement

<i>On campus</i>			<i>Off Campus</i>
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
168	1284	857	

### 5.8 Details of gender sensitization programmes

Thapar University is committed to creating and maintaining a community in which students, teachers and non-teaching staff can work together in an environment free of violence, harassment, exploitation, intimidation and stress. This includes all forms of gender violence, sexual harassment and discrimination on the basis of sex/gender or amongst the same sex members. Every member of the University should be aware that while the University is committed to the right to freedom of expression and association, it strongly support gender equality and opposes any form of gender discrimination and violence. All the complaints in this regard can be made to the committee duly constituted by the Thapar University, Patiala.

### 5.9 Students Activities

#### 5.9.1 No. of students participated in Sports, Games and other events

State/ University level

228

National level

--

International level

--



#### No. of students participated in cultural events

State/ University level  National level  International level

#### 5.9.2 No. of medals /awards won by students in Sports, Games and other events

Sports: State/ University level  National level  International level

Cultural: State/ University level  National level  International level

#### 5.10 Scholarships and Financial Support

	Number of students	Amount (Rs)
Financial support from institution	258	2,32,02000
Financial support from government	45	75,37,600
Financial support from other sources	2	17760
Number of students who received International/ National recognitions		

#### 5.11 Student organised / initiatives

Fairs : State/ University level  National level  International level

Exhibition: State/ University level  National level  International level

5.12 No. of social initiatives undertaken by the students

5.13 Major grievances of students (if any) redressed: Nil

## **Criterion – VI**

### **6. Governance, Leadership and Management**

#### **6.1 State the Vision and Mission of the institution**

##### **VISION**

To be recognized as an exemplary leader committed to excellence in education, research and innovation that meets the needs of the global community.

- An Institution grounded in rigor and relevance
- Innovative, Integrative and Inclusive
- Engineering education grounded in rigorous Mathematical, Physical, Biological and Social sciences
- Business Education grounded in rigorous Mathematical and Behavioral sciences
- Relevant blend of theory and practice
- Higher Education with global relevance

##### **MISSION**

- To provide a scholarly and professional environment that enables faculty, students and staff to make lasting contributions to the advancement of knowledge
- To be dynamic, innovative and flexible in devising academic programmes, structures and mechanisms.
- To produce globally competent graduates having creative skills and ethical values
- To carry out cutting-edge research and development for the benefit of society

#### **6.2 Does the Institution has a management Information System**

Yes. Thapar University, Patiala has implemented e-solutions software for its academic and other related activities including human resource management and financial management. Academic activities, such as, conduct of mid semester test and end semester examination, central repository of marks and grades of the students, assigning the grades to the students by faculty members and students reaction survey have been implemented using this software. Online facility for registration information, date-sheet, seating plan and duty chart has been provided to all the concerned through Web-Kiosk. On-line quizzes have been started for core courses. Computerized DMCs of students are sent to the parents.

#### **6.3 Quality improvement strategies adopted by the institution for each of the following:**

##### **6.3.1 Curriculum Development**

The statutory bodies of the University, the Senate or the Planning and Monitoring Board oversee the design and development process so that the activity is carried out in a planned manner. The detailed planning for this activity is the responsibility of the Department Head. The systematic process of design and development includes the activities & sub activities including techniques & organizational interfaces and the time frame for completion of various activities. The plans are updated, as the instructional design evolves.

The design and development process generally begins with a need analysis report which comprises of (i) Stated customer needs (ii) Implied needs (iii) Overall goals of Instructions (iv) Relevant standards i.e.

AICTE and UGC guidelines and Curricula of Entrance Tests like Indian Engineering Services (IES) and Graduate Aptitude Test for Engineers (GATE), etc. and (v) General characteristics of target population. Organizational and Technical interfaces between different faculty and external expert groups providing input to the instructional design are defined, committees are constituted and their reports are documented. Faculty members from different disciplines connected with the design & development activity are associated with the process. The updation/restructuring is carried out as the design process progresses. Clear responsibilities are assigned and effective communication is ensured. The requirements of instructional design are determined and recorded. For instructional design, the input is taken from various sources. Input requirements are clearly understood and reconciled. The design input may come from:

- Need analysis & Reviews.
- Recommendations from alumni, senior management, industry etc.
- Success/failure reports of similar courses & programs.
- Published literature relevant to programs.
- Boundary condition w.r.t GATE, IES, IAS curricula etc.

The process of determining solutions to satisfy the identified needs is laid down and documented. Instructions are designed by incorporating these solutions. The analysis and mappings are recorded. The design output at this stage is taken as the initial design for subsequent reviews. The output of instructional design & development is documented in the form of a report named “Curriculum and Scheme of Courses”. Through various reviews and verifications, it is ensured that the design output meets the design input requirements.

The design output report includes:

- The types and levels of skill and knowledge to be imparted
- Details of need analysis and mappings at various stages
- Scheme of courses and the detailed syllabi
- Instructional strategies.
- Selection of instructional aids for delivery.
- Assessment and evaluation.

The output documents like curriculum and instructional strategies are reviewed and approved before release at various levels and stages.

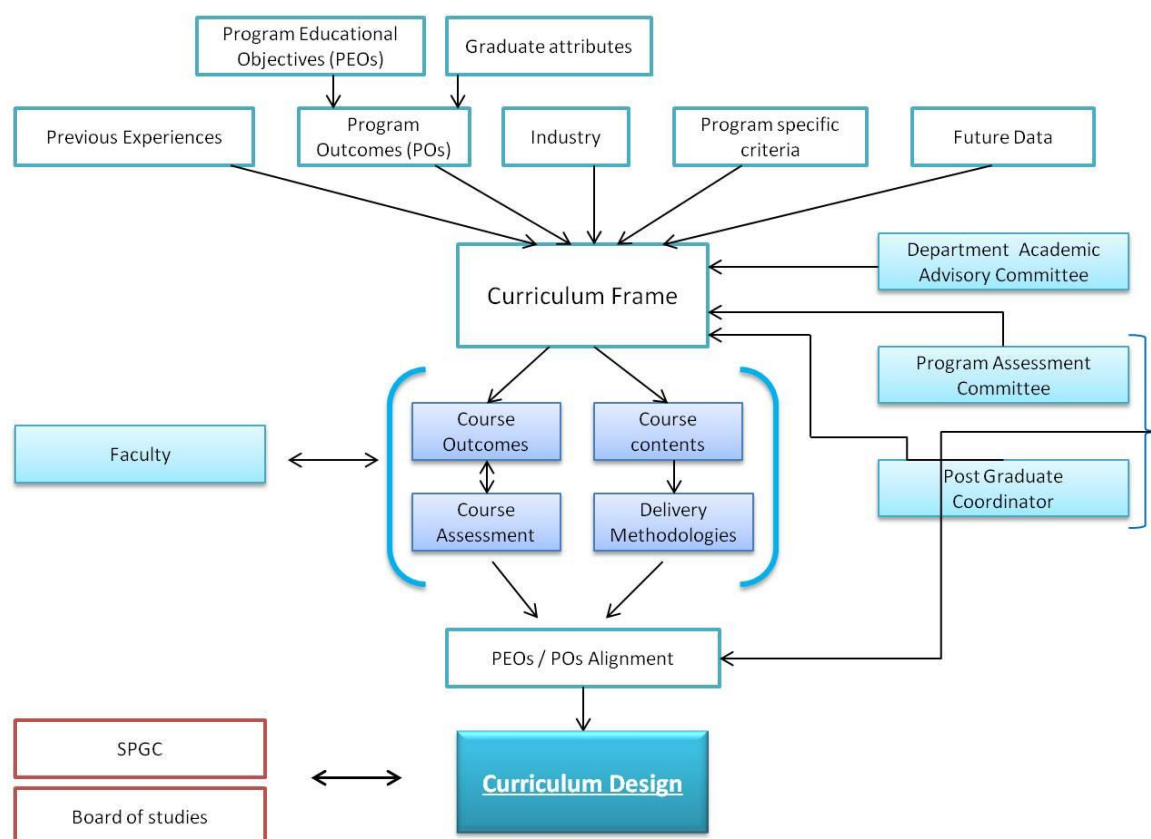
Reviews are conducted at defined stages of the curriculum Design, in which faculty members from the concerned area as well as experts from amongst the peer group from within and/or outside the University are associated. Records of the reviews are maintained. Based on the reviews, the design is updated and brought into document control for revision. The design reviews are carried out at the end of each of the following stages using prescribed check lists:

- Need analysis
- Design and review by Board of Studies (BOS)
- Review by Senate Postgraduate Committee (SPGC)
- Review by Senate
- Review by Board of Governors (BOG)

Verification of design is conducted by comparison of the design with similar courses run by prestigious Universities. Evolved designs are also verified by taking independent opinion of the experts from

amongst the peer group from within or outside the University. The new curriculum is introduced only after adequate verification.

New/revised curriculum and instructional design is made applicable to the prospective students. The curriculum is validated in the initial stages of its introduction by taking a feedback from students and faculty members regarding the effectiveness and applicability of the curriculum, with regard to the documented needs. Necessary changes, if required, are made to ensure that the design conforms to defined needs of the students. Wherever required, additional instructional sessions and allied inputs are arranged for students/participants.



The general steps followed in curriculum development are as under :

- The need for starting a new programme or course(s) may arise from interaction with Industry, Faculty, Students, Alumni or PMB/Senate/BOG , UGC/AICTE etc.
- The idea of proposed programme is discussed in the HODs' meeting and if found appropriate, the Head of concerned deptt is asked to put up a proper proposal. A sub-committee of internal/external member(s) may sometimes be formed for making the feasibility and viability analysis.
- The DAAC (on the basis of recommendations of sub-committee, wherever required) does the need analysis and prepares the proposal for approval from BOS.
- The BOS after deliberating on the proposal may make the desired modifications and then send the proposal to DOAA for consideration in SUGC/SPGC, alongwith the duly filled checklists.
- The proposal is put up for consideration to SUGC/SPGC and upon its approval the recommendations may be sent to the Senate and PMB.

- After the Senate approval, the proposal may be sent to concerned Department/School through academic section for allocation of appropriate course codes OR if required it is sent to AICTE/UGC for approval and the status is put up in the forthcoming meeting of BOG.
- In case AICTE/UGC approves the proposal, it is implemented by the concerned Department/School after allocation of proper course code by the academic section.

### **6.3.2 Teaching and Learning**

- Expose faculty to internationally acclaimed teaching-learning processes.
- Implement re-structuring of processes to move from a purely classroom learning to classroom-cum-project and research led learning.
- Introducing an external review of the teaching learning process by co-opting experts from internationally acclaimed institutions.
- Flexible curriculum and scope for learning beyond syllabus
- Joint or dual or Twinning degrees with partner institution(s)
- Hybrid earning (online and offline) is going to be a trend in future.
- Exposing students to more projects and hone their technical and soft skills.
- Partner with an Institution of International Repute to implement these processes

### **6.3.3 Examination and Evaluation**

Program wise examination boards shall be created for both UG and PG Programs to examine the examination patterns including the quality of question papers, evaluated answer sheets, laboratory examinations, seminars and scrutiny of grades awarded. The examination board will consist of one program expert from premier institutes, one member from the cognate area from outside the department/school and two senior members of the department/school. The action points are:

1. The list of program experts will be prepared by the respect department/school in consultation with experts from premier institutions.
2. Department panels members and cognate member of board for each program shall be prepared by departments/schools
3. COE with approval of the Director will appoint the examination board for each academic year which will conduct its activities with one month of the end semester examination.

The department will analyze the findings of the report and take necessary corrective / preventive action(s) within the next one month.

### **6.3.4 Research and Development**

- Facilitator for knowledge generation & dissemination of international repute.
- Publish in international journals of repute with higher impact factors.
- Promote interdisciplinary and multidisciplinary research programs.
- Consulting projects with research angle
- Research sponsored funding especially by younger faculty within three years of their joining.

- A center of excellence in each department in an area with most potential.
- Intellectual property parameters - Innovations and patents.
- Research partnership with reputed national (IIT's and IISc) and International Universities.
- Establishment of incubation centres to leapfrog research and innovation.

### 6.3.5 Library, ICT and physical infrastructure / instrumentation

University Library is housed in a centrally air conditioned spacious premises covering an area of 25,000 square feet. It has 106069 collection with 79652 books (reference books, course materials, text books), 2474 print theses, 4284 standards, 4973 bound volumes of journals, educational and career development aids, video etc. These are available on D-Space server and can be accessed from anywhere on the globe. From 2006 onwards all the PhD and Master theses are uploaded on D-Space. During the year library subscribed to about 11,220 e-journals and 102 print journals. E-journals are received under UGC-Infonet program, INDEST consortium and directly from supplier/publishers. Budget for books and journals for the financial year was Rs.70 lakh on print and e-journals and Rs.50 lakh on purchase of books. Library remains open 24X7 throughout the year, even on gazetted holidays. Most of the library operations are automated. Library catalogue (OPAC) can be searched from anywhere and subscribed e-resources can be searched from the Campus only.

The Library offers the following facilities/services:

1. **Digital Resource Centre:** Digitization project of Library is in progress. First phase i.e. digitization of all the previous thesis is over. This laboratory also provides place for faculty and group of students for working on their library learning based assignments.
2. **Reading Facilities:** Three separate reading halls, including one exclusively for faculty and research scholars are available. In addition to these reading halls, reading space is available in the learner's zone, Community library and Print theses sections as well. Library has in all seating capacity for 350 readers.
3. **Community library** for the families of staff and faculty members is a part of Library, where books, newspapers and magazines for children, grownups, ladies and senior citizens are available and this section remains open from 08:00 A.M. to 08:30 PM on all the working days.
4. **Information and communication infrastructure:** The Library is equipped with state of the art facility which includes 200 nodes for Wi-Fi network in addition to wired connectivity. A number of computers are dedicated for library users. Resources like digital scanners, printers, photocopiers and surveillance system for security etc. are available.
5. **Online resources and services:** These can be accessed through its website <http://cl.thapar.edu>. the library also manages the University's digital archive Dspace@TU which can be accessed at <http://dsapce.thapar.edu:8080/dspace>. All the dissertations and theses are now submitted to the University on Dspace@TU. During the year 586 submissions were made on DSpace.
6. **Membership:** Library caters to faculty, staff and students of all the three institutions on the Campus. Students registered for Distance Learning course of University can also become members. Private local resident, professionals and institutions & industries and alumni of the university can also become member of Library on nominal fee.
7. **Document Delivery Service:** Research paper/articles which are not available in the subscribed e-journals and print journals are procured by the library on request through Document Delivery Service (DDS). Library interacts with other libraries and agencies as NISCAIR for procuring research articles.
8. **Library on Wheels:** To make faculty members and research scholars aware about 'Resources & Services @TU Library' library conducts and organize presentations in different departments from time to time.
9. **Collection Development:** This year 8225 volumes of books were added to the collection. During the financial year 2013-14 Rs 31 lakh was spent on the purchase of books and Rs.70 lakh on subscription of print and e-journals.

10. **Library Hours:** Library remains open for 24 hours throughout the week. Library services are provided from 8 am to 8.30 pm from Monday to Saturday. During the examination, the library services are also made available on Sundays.
11. **Book Loans:** During the reporting year a total of 34226 books were loaned out to the members.

### 6.3.6 Human Resource Management

The University has set high standards for imparting quality education and thus induct faculty with higher academic profiles, urge to excel in their respective fields and serve the students and the University with dedication and high quality standards. All the faculty members inducted are qualified and competent teaching in all the academic courses. The University does not recruit any faculty without PhD since 2010. Some of the faculty members recruited prior to this have been encouraged to register for PhD program at the University or other institutions of high repute. Most of these faculty members are at an advanced stage of completing their research work. The University has facilitated their work by giving them one to two semesters off on their request.

The University has established a Professional Development Allowance for a variety of academic activities for all levels and has encouraged faculty to participate in conferences, symposiums, workshops, training programs etc. The University provides seed money for organizing conferences and other faculty development programs to all academic units from time to time.

For the non teaching staff, the University has organized Computer proficiency upgradation programmes for to achieve the desired standards and all the ministerial staff has been trained to handle computers for the routine jobs. The non teaching staff has been motivated and the self development achieved can be gauged from the higher qualifications attained by its staff during the last five years.

The University has organized Computer proficiency upgradation programmes for the ministerial staff to achieve the desired standards and all the ministerial staff has been trained to handle computers for the routine jobs. The non teaching staff has been motivated and the self development achieved can be gauged from the higher qualifications attained by its staff during the last five years.

### 6.3.7 Faculty and Staff recruitment

The largest constraint in the growth of higher education is lack of faculty. The University makes special efforts for recruitment and retention of quality faculty. The desired profile of the faculty at all levels has been clearly defined. The positions have been publicized widely through print and electronic media. The impact of the change has been clearly visible through larger interest among prospective faculty to join the University. Better qualified faculty members have applied. A meticulous process of evaluation that includes seminar presentation and personal interviews with a carefully chosen panel of experts is adopted. All full time positions offered had Ph D degrees. To provide impetus to the effort and facilitate selection and induction of highly qualified faculty members at the entry and higher levels, we now entertain applications throughout the year. The details of faculty recruitment (new recruitments –external) and internal promotions during the year are as under.

#### Fresh Recruitment

Department	Professor	Associate Prof.	Asstt. Prof.			Lect. Cont.	Total
			GP 7000	GP 8000	GP 8500		
DBTES	1	2	1	0	0	1	5
CHED	1	0	0	1	0	0	2
CED	0	0	0	0	0	4	4
CSED	0	1	0	0	0	6	7



ECED	0	1	2	2	0	0	5
EIED	0	0	0	0	3	4	7
MED	0	0	0	2	0	2	4
SCBC	1	2	2	1	0	0	6
SMCA	0	0	8	0	0	1	9
SPMS	1	2	0	0	0	0	3
SEE	0	1	1	0	0	1	3
Total	4	9	14	6	3	19	55

#### **Faculty Upgradation**

Department	Asstt. Prof.		Total
	GP 8000	GP 8500	
DBTES	1	0	1
CHED	4	0	4
CSED	0	1	1
ECED	3	1	4
EIED	0	1	1
MED	2	0	2
SCBC	1	0	1
SMCA	1	3	4
SPMS	1	2	3
SBSBS	1	0	1
Total	14	8	22

The academic performance of the faculty is monitored through the student's response survey. The research performance has been measured through research funding received, research publications and number of PhDs and Masters Students supervised. The performance of the faculty has been ranked through a rigorous process and superior performance is rewarded through a unique performance incentive scheme.

#### **6.3.8 Industry Interaction / Collaboration**

- Secure Net Technologies
- Wipro Technologies, Bangalore
- Trinity college, University of Dublin
- Crompton Greaves Ltd. Mumbai.
- ISA Group Lille, FRANCE
- Brown University, USA
- University of Waterloo, Canada
- Microsoft Edvantage Program
- EC-Council, USA
- Infosys Campus Connect
- Naveen Jindal School of Management, the University of Texas at Dallas,
- Royal Melbourne Institute of Technology
- EFREI engineering school of information & Digital Technology , Paris, France.
- University of Florida



### **6.3.9 Admission of Students**

The complete admission schedules are advertised in the leading National Dailies and magazines well in advance and repeating the advertisements two to three times before the counseling sessions. The schedule is also simultaneously displayed on the Website of the University. The queries of the aspirants are handled telephonically and through e\_mail promptly. The transparency is achieved by displaying the data and results of applicants and those short listed on the University Website. Merit lists are also displayed on the Notice Board based on the Counseling conducted publicly. Full transparency is ensured at levels by the Thapar University management.

#### **ADMISSION TO THE BE/BTECH PROGRAMME**

A candidate shall be eligible for admission in the UG programmes if he/she has passed 10+2 or equivalent examination with at least 60% marks (55% for SC/ST candidates) in aggregate of three subjects, namely, Physics, Mathematics and any one subject out of Chemistry, Biology, Biotechnology and Computer Science and has qualified Joint entrance examination conducted by CBSE every year with at least 20% aggregate marks (15% for SC/ST candidates).

The University, if deems fit, may admit students to the second semester of UG engineering programmes in January subject to vacancies that may exist in the first semester of first year. The students admitted in this category shall have to clear all the courses as per the scheme of the discipline of Thapar University, in which she/he is admitted. To be considered for December admission, the candidate should be a student of BE/BTech programme of a recognised Institute/University and have passed 10+2 or equivalent examination from recognized board and have secured at least 60% (55% for SC/ST candidates) marks in aggregate of Mathematics, Physics and Chemistry/Computer science/Biology/Biotechnology. The candidate must qualify TU entrance test with at least 20% aggregate marks (15% for SC/ST candidates).

A candidate may also be admitted to the 2nd year of the UG engineering program through lateral entry if he/she has passed diploma, in relevant discipline, of minimum 3 years duration after matriculation or diploma, in relevant discipline, of minimum 2 years duration after 10+2 from Polytechnic College/Institute affiliated with State Board of Technical Education/University, or recognized by UGC/AICTE with a minimum of 60% marks (55% for SC/ST) in aggregate or equivalent grade point. Also, candidates with BSc(Non-Medical) from recognized University with 60% (55% for SC/ST) marks in aggregate can also be admitted through lateral entry in the 2nd year. Such candidates are admitted on the basis of merit obtained in the online entrance test conducted by the University (LEET-TU) with at least 20% aggregate marks (15% for SC/ST candidates).

#### **ADMISSION TO PhD PROGRAMME**

A candidate seeking admission to the degree of Doctor of Philosophy must have obtained ME/MTech/MPhil/MCA/MSc/MA/MBA/CA or equivalent with minimum CGPA of 6.00 on a 10 point scale or 55% marks in aggregate where marks are awarded or NET (UGC/CSIR) qualified. Candidates are admitted on the basis of merit of Entrance Test and Interview conducted by the University. The candidates who secure minimum of 20% marks in the written exam are only be called for Interview. During interview, a candidate is required to indicate area of research. Relaxation for appearing in the Entrance Test may be given by the University to those candidates who have qualified UGC/CSIR (JRF).

#### **ADMISSION TO ME/MTech PROGRAMME**

Admission to all the ME/MTech programmes is made on the basis of valid GATE Score in respective discipline. First preference is given to GATE qualified candidates. After offering seats to the GATE qualified candidates, for seats remaining vacant (if any), the admission is made on the merit of the online entrance test conducted by the University across India and only those candidates who shall be having minimum 20% (15% for SC/ST) in the entrance test are considered for admission. Additionally, the

candidate must have obtained at least 60% (55% for SC/ST) marks in the aggregate in the qualifying examination from a recognised University.

#### **ADMISSION TO MCA PROGRAMME**

The admission to the MCA program is made on the merit of the entrance test conducted online by the University across India. To be eligible for admission the candidate must have a recognized bachelor degree of minimum 3 years duration in any discipline with at least 60% marks (55% for SC/ST) in aggregate.

#### **ADMISSION TO MSc PROGRAMMES**

Admissions in all the MSc programs are made by combining percentage of marks obtained at 10th, 12th and graduation from a recognized University (aggregate marks upto second year/four semesters are considered).

Detailed information about all the programmes and the admission process can be accessed at [www.thapar.edu](http://www.thapar.edu)

6.4 Welfare schemes for

Teaching	Yes
Non teaching	Yes
Students	Yes

6.5 Total corpus fund generated

As on 01-04-2013	= Rs 29.73 cr
Additions during the year 2013-14	= Rs 3.01 cr
Balance as on 31-03-2014	= Rs 32.74 cr

6.6 Whether annual financial audit has been done      Yes ☒      No ☐

6.7 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	STQC	Yes	IQAC
Administrative	Yes	STQC	Yes	IQAC

6.8 Does the University/ Autonomous College declares results within 30 days?

For UG Programmes      Yes ☒      No ☐

For PG Programmes      Yes ☒      No ☐

**6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?**

Program wise examination boards shall be created for both UG and PG Programs to examine the examination patterns including the quality of question papers, evaluated answer sheets, laboratory examinations, seminars and scrutiny of grades awarded. The examination board will consist of one program expert from premier institutes, one member from the cognate area from outside the department/school and two senior members of the department/school. The action points are:

1. The list of program experts will be prepared by the respect department/school in consultation with experts from premier institutions.
2. Department panels members and cognate member of board for each program shall be prepared by departments/schools
3. COE with approval of the Director will appoint the examination board for each academic year which will conduct its activities with one month of the end semester examination.

The department will analyze the findings of the report and take necessary corrective / preventive action(s) within the next one month.

**6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?**

NA
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**6.11 Activities and support from the Alumni Association**

Scholarships and Placements/Training
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**6.12 Activities and support from the Parent – Teacher Association**

NA
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**6.13 Development programmes for support staff**

Computer proficiency up-gradation programmes for the ministerial staff to achieve the desired standards and all the ministerial staff has been trained to handle computers for the routine jobs. The non teaching staff has been motivated and the self development achieved can be gauged from the higher qualifications attained by its staff during the last five years.

**6.14 Initiatives taken by the institution to make the campus eco-friendly**

The University is taking the possible initiatives for energy conversation and the new buildings of the University are being designed accordingly to save the energy. The employees and students are advised to use the natural light, turn off the switches of lights, fans etc. whenever not in use, use of LCD monitors for computers, use of tube lights instead of bulbs etc. There are sufficient cross ventilation in laboratories and class rooms to avoid the unnecessary use of electricity. The University has also installed the Power

Factor Correction System to save the electricity.

The University has taken several initiatives to make eco-friendly. The University has hired an outside consulting firm for energy auditing and its recommendations are being implemented throughout the University. The use of solar energy specially for heating water in student hostels has been attempted in one of the largest hostel on campus and has been a successful experience. The street lighting in some sections has been made functional with solar energy. There has been wide plantation throughout the campus and Thapar University is one of the greenest campuses in the region. The university has dedicated plantation areas and one such park “Nirvana” has come up beautifully during the last three years.

The University has made provisions of rain water harvesting system in all the new buildings.

The biological waste from various laboratories is collected by Semb-Ramky Environment Management Pvt. Ltd., Ludhiana on weekly basis as per MOU signed between university and them. All other solid waste of residences, hostels and campus is being collected and disposed off at Municipal Corporation dumping ground. Treatment of waste water by Sewage Treatment Plant (STP) and reuse of treated water for irrigation.

The University has followed the Government of India notification related to e-waste (Management & Handling) Rules 2011 that came into effect from May 1, 2012. These rules were circulated to all the Heads of Units and were advised to understand the definition of the e-waste mentioned at page no. 28, sub clause (k), of clause 3 of the said rules. The University comes under the definition of Bulk Consumer which is also mentioned on the same page under sub clause (c) of clause 3 of the said rules and the responsibilities of the “Bulk Consumer” mentioned at page 31 under clause 6 of the said rules and the same has been understood by all concerned. All the Heads of the Departments / Schools / Centres / Units are required to maintain the stock of the e-waste generated in their respective Departments / Schools / Centres / Units in the Form-2 of the said rules. They are supposed to complete entries from Sr. No. 1 to 5 of the Form-2. The e-waste generated can be sent to Central Stores once in six months with a copy to Chairperson, e-waste Management Committee. Central Stores has identified a specific area to store the e-waste sent by different units for final disposal to the authorized vendor M/s Singbros Mobility Solutions, D-85, Focal Point, Patiala.

Following steps have been taken for carbon neutrality:

- The students are not allowed to use the powered vehicles in the campus. They use only bicycles to move in the campus.
- Only LPG cylinders are used in hostels and other places for cooking.
- Installation of Solar Water Heating system at Derabassi Campus and University is also planning to install the same at Patiala campus also.

## **Criterion – VII**

### **7. Innovations and Best Practices**

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

#### **Innovation in quality systems**

The University has established, documented and implemented a Quality Management System. Continuous improvement in the implementation and effectiveness of the quality management system is ensured through continuous reviews and internal audits. The University has:

- Identified the processes needed for the quality management system and their application throughout the organization process are being carried out in the University. Documented procedures have been developed for the management activities, provision of resources, instructional design, delivery and control and measurement.
- Determined the sequence and interaction of the processes of the quality management system. This includes process pertaining to instruction planning, delivery and control as well as support, service and administrative processes.
- Determined the criteria and methods needed to ensure that both the operation and control of these processes are effective.
- Ensured that all the resources and information required for operation and monitoring of the processes are available from time to time.
- Has planned arrangements for monitoring measurement and analysis of the processes.
- Has implemented the planned arrangements along with their control mechanism for the achievement of planned results and for continual improvement of the processes.

#### **Innovations in academic activities**

- The student admission process for the Undergraduate program is made with the help of a e-governance package. Even student registration and their complete academic performance from the day of admission to the passing out is maintained on this system.
- The University has developed a system for collecting feedback on student reaction for each course online and the results are automatically analyzed and made known to the faculty members.
- The University has a Performance Incentive Scheme for its entire faculty. The four key result areas identified for improvement include: teaching quality; professional/career development of teachers; relation building with industry, alumni and community and implementation of other co-curricular and extra-curricular activities of students.

#### **CONTINUAL IMPROVEMENT**

The University continuity improves the effectiveness of the quality management system through the use of quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review. At the time of every management of review, through the measure of each objective and its comparison with earlier level of that objective, the trends are ascertained. Action points are then listed to continually improve the system. The status is reviewed in the subsequent management review meetings.

## CUSTOMER SATISFACTION

The University has made arrangements to monitor information related to customer perception to ascertain whether the University has met customer requirements. The information is collected using the following established mechanism:

- Feedback from the students at the end of every semester on various aspects of the course taught to them.
- Feedback collected from the industry during the campus interviews.
- Feedback from students after they spend six months in industry for their project semester.
- Feedback from the six months project semester of the students, on the quality of students and their usefulness to the industry.

The information thus collected is summarized, and analyzed and the results of the analysis are used as a feedback to further improve the system.

## INTERNAL AUDIT

The University conducts internal audits every six months to verify whether quality managements system conform to the quality plan and to determine that it is effectively implemented and maintained. The scope covers all activities of the quality system affecting quality of instruction. The responsibility of scheduling internal quality audits lies with the M.R. The arrangements made for conducting internal audits are:

- Documented procedure for planning and implementing internal quality audits has been established and maintained.
- The frequency of the internal quality audits has been decided based on the status and importance of the activity but in no case the frequency shall be less than once in six months.
- The audit of an area/activity would be carried out by trained personnel other than those directly responsible for the said activity.
- The results of the internal quality audits are recorded and report is given to concerned functional Head.
- Timely action on the reported non-conformities is planned and taken by concerned functional Head.
- Follow-up audit is conducted in-order to verify and record the implementation and effectiveness of the corrective action(s) taken.
- The results of the internal quality audits are sent to M.R. for management review and record.

## MANAGEMENT REVIEW

The review of the quality system shall be carried out once every six months to ensure continuing suitability, adequacy and effectiveness in satisfying the requirements of the standard and the quality policy of the University. The review includes assessing opportunities for improvement and the need for change to the quality management system.

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year :

**Please See Annexure 2**

7.3 Give two Best Practices of the institution (*please see the format in the NAAC Self-study Manuals*)

**Please see Annexure 3 & 4**

7.4 Contribution to environmental awareness / protection

The University has very lush green campus. The Horticulture Section of the University is responsible to

maintain the lawns, fruit orchard, Nirvana Park (A 6 Acre Park containing 3000+ plants of different species) and other areas. The University has also won many prizes in state level flower competitions.

#### **PARYAVARAN WELFARE SOCIETY (PWS)**

- Inauguration of water Supply Tanker: For watering to the planted trees planted in the different location of Patiala, PWS purchased his own tanker. Inauguration of this tanker was carried out on 23rd July 2013
- Tree Plantation Drive was carried out at Central jail, Patiala on 25th July 2013
- Tree Plantation Drive was carried out at Civil Lines, Patiala on 28th July 2013
- After the Uttarakhand tragedy the whole nation united to help the flood victims. We, on behalf of Paryavaran Welfare Society did the same by sending flood relief material.
- Tree Plantation Drive was carried out at Mardheri Village , Patiala on 9th August 2013
- Tree Plantation Drive was carried out at Jasowal Village, Patiala on 15th August 2013
- Tree Plantation Drive was carried out at Rongla Village, Patiala on 19th August 2013
- Tree Plantation Drive was carried out at Chuaharpur Jattan Village , Patiala on 25th August 2013
- Tree Plantation Drive was carried out at Central divider Sirhind Road, Patiala on 26th August 30th August 2013
- Tree Plantation Drive was carried out at Central divider Sirhind Road, Patiala on 5th, 10th, 14th, 18th, 21st and 23rd September 2013
- Tree Plantation Drive was carried out at Police lines, Patiala on 16th October 2013
- Tree Plantation Drive was carried out at Central divider Bus stand, Patiala on 19th October 2013
- Tree Plantation Drive was carried out at Maharaja Yadvandra Enclave, Patiala on 23rd October 2013
- PWS organised blood donation camp at Thapar University, Patiala on 25th October 2013
- For the benefit of birds, we have installed 50 pieces of Artificial nests for birds in the different location of Thapar University on 31st October 2013
- PWS carried out Patiala Cleaning Campaigns in the different location of Patiala like: Passi road, Bhupindra road and vikas vihar on 11th, 17th and 22nd January 2014.
- In the month of February 2014, PWS carried out Patiala Cleaning Campaigns in the different location of Patiala like: PRTC workshop on 11th February and Alongside Central jail from 12th February to 27th February 2014.
- PWS carried out national science day celebration on 28th February 2014 at Science city Kapurthala.
- In the month of March 2014, PWS carried out Patiala Cleaning Campaigns in the different location of Patiala like: Bhupindra road, Patiala (from 1st March to 5th March 2014), Government poultry farm (from 7th to 8th March 2014), Government Rajindra Hospital, Patiala (from 9th to 17th march 2014) and PRTC workshop (from 29th to 31st March).
- PWS carried out World Water day celebrations on 22nd March 2014 at Thapar University, Patiala.
- PWS carried out Tree plantation drive at Government elementary Multipurpose school, Patiala on 26th march 2014.
- To create awareness to save energy PWS carried out Energy awareness campaign on 27th March at Thapar University, Patiala. During this event we had distributed 60 CFL tubes to the needy staff members of TU. After CFL distribution, we had carried out TU Black-out and candle light march.
- To create awareness among students about environment, we had carried out Expert talk by Dr. Paramjeet Singh on 31st March 2014.

7.5 Whether environmental audit was conducted?      Yes ☐      No ☒

7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis):

**Please see Annexure 5**



## 8. Plans of institution for next year

S. No.	Success Metric	Current Status	Goal (Within 5 years)
1	Position in Indian Ranking by various organization/bodies	Top 20 in the country	Amongst the top 10, (specific benchmark BITS Pilani)
	Position in Asian Rankings – QS or other reputed bodies	Don't feature in global rankings	To figure in global rankings (in the next 5 years)
2	Research Funding from national and international sponsoring organizations/ industries	Rs 8.0 Crore per year	Rs 25 Crore per year
3	Publications in international peer reviewed journals  number of citations	450 in SCI/SCI Expanded per year  7117 citations till date	900 in SCI/SCI Expanded per year  15000 citations
4	Quality of UG entrants	80% of the admitted students are within top 12% of the National JEE test conducted in the country	80% of the admitted students are within top 8% of the National JEE test conducted in the country
5	Employability of graduates (overall)	UG : 80% PG: 50%	UG: 95% PG: 75%
6	International students and faculty	Students: < 1%  Faculty: Nil	Students: 5%  Faculty: 2%
7	International Accreditation – ABET	Preparation has begun	4 Engineering programs in the next 3 years
8	Joint Degree (4 year program with 1 year at TCD		One degree signed by TU and TCD
	Dual Degree	One in PG Civil- to begin from 2015	In all departments
	Twining Programs	< 1% students have international exposure	(B.E. from TU and B.A from TCD)

Name Prof Ajay Batish

Name Prof Prakash Gopalan

\_\_\_\_\_  
Signature of the Coordinator, IQAC

\_\_\_\_\_  
Signature of the Chairperson, IQAC/ Director

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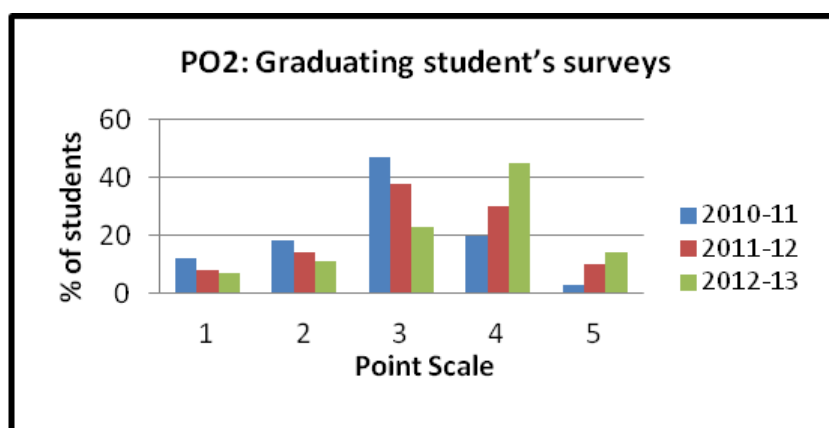
**Feedback from Alumni and graduating students**

These surveys are done for all programs. An example to measure one outcome for UG Mechanical Engineering Program wherein data from graduating students and Alumni was collected is presented here. Several such reports form data for measuring outcomes of every program.

**Assessment Tool:** Graduating student's surveys

**Assessment Criterion:** Have you acquired reasonable practical and laboratory skills for analysis and design?

***Evidences from the above tool and criterion***



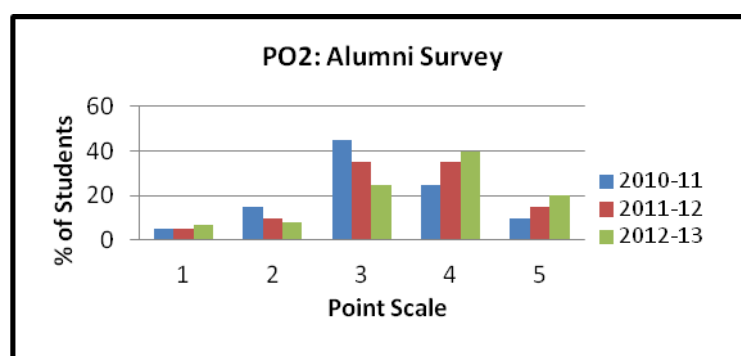
**Graduating student's survey regarding attainment of PO 2**

It is observed from the figure shown above that nearly 75% of graduating students responded with rating  $\geq 3$  on 5 point scale that they have acquired reasonable practical and laboratory skills for analysis and design.

**Assessment Tool:** Alumni Survey

**Assessment Criterion:** How comfortable were you with the assignments like conducting experiments/testing for verifying the viability of new/modified design of components?

***Evidences from the above tool and criterion***



**Alumni survey regarding attainment of PO 2**

## **Annexure: II**

### **ACTION PLAN - Academic Review of four departments (MED, CSED, CED and ECED)**

<b>Action No. 1</b>	<b><u>Gap identified: Culture</u></b> <ul style="list-style-type: none"><li>Teaching-research balance leans heavily towards the teaching end of the spectrum.</li><li>To improve performance to the stated target a significant emphasis on research is required. This would require to develop metrics for measuring the research output of each department</li><li>In re-balancing in the direction of research, there should be overall less teaching effort for academic staff as a whole.</li></ul>		
<b><u>Recommended Action(s)</u></b> <p>Reduce contact hours of teaching and length of the semester. (18 to 15 weeks reduction and incorporate three reading weeks spread over the semester) Will need to revise regulations</p> <p>Re-allocate Teachers load – Teaching + Research + Admin. (Wider discussions and action after discussions with all academic functional heads)</p> <p>Review all Core (1<sup>st</sup> year) and Professional courses for outcome base, project (self-study, topics for self learning to be in the syllabus) led teaching linked to program outcomes.</p> <p>Departments to review all courses for outcome of each program. Department to define requirements for all Professional courses and link these to what should be taught as core (basic / 1<sup>st</sup> year/ fundamental) courses.</p> <p>Each department will develop metrics that will be used to measure the research output of the department over a period of time.</p>		<b><u>Responsibility</u></b> <p>DOAA, DRSP and the four HOD's</p>	<b><u>Target Date</u></b> <p>Departmental plan- End Feb 2015.</p> <p>End Feb 2015.</p> <p>Complete by May 2015 BOS+SUGC/SPGC +Senate for 2015 admission.</p> <p>Applicable from academic year 2015-16 (develop by May 2015)</p>
<b>Action No. 2</b>	<b><u>Gap identified: Teaching</u></b> <ul style="list-style-type: none"><li>Curriculum is heavily content-driven with a focus on universal coverage of a linear sequence of syllabus topics</li><li>Less focus on the associated use of design and application and over reliance on text-book type material</li><li>Little evidence of research linkage</li><li>Considerable effort goes into assessment.</li></ul>		
<b><u>Recommended Action(s)</u></b> <p>Complete review of the curriculum for the four departments will be undertaken to make it outcome based with research inspired teaching. The visit of the heads of the departments to TCD will be used to understand and implement this major activity.</p> <p>Flexible evaluation scheme will be implemented apart from</p>		<b><u>Responsibility</u></b> <p>DOAA and the four HOD's</p>	<b><u>Target Date</u></b> <p>May 2015.</p> <p>Plan ready by End</p>

MST and EST and project based courses.			Feb 2015
<b>Action No. 3</b>	<b><u>Gap identified: Teaching</u></b> <ul style="list-style-type: none"> <li>Specific learning objectives should be defined for project semester</li> <li>Introduce teaching innovation and entrepreneurship in senior years.</li> </ul>		
<b><u>Recommended Action(s)</u></b>  Syllabus will be modified to specify content / rubrics of the projects to be followed by the students and faculty for evaluation. The learning objectives will be listed. Departments will review with LOs taken from the Industrial exposure.  Teaching innovation and entrepreneurship will be covered in Capstone project implementation. Entrepreneurship to be covered in some course run by TU / TCD.		<b><u>Responsibility</u></b>  DOAA and the four HOD's	<b><u>Target Date</u></b>  End Feb 2015.  End Feb 2015
<b>Action No. 4</b>	<b><u>Gap identified: Teaching</u></b> <ul style="list-style-type: none"> <li>Scrutiny of grades at programme level by convening examination boards</li> </ul>		
<b><u>Recommended Action(s)</u></b>  Program wise examination boards shall be created for both UG and PG Programs to examine the examination patterns including the quality of question papers, evaluated answer sheets, laboratory examinations, seminars and scrutiny of grades awarded. The examination board will consist of one program expert from premier institutes, one member from the cognate area from outside the department/school and two senior members of the department/school. The action points are:  The list of program experts will be prepared by the respect department/school in consultation with experts from premier institutions.  Department panels members and cognate member of board for each program shall be prepared by departments/schools  COE with approval of the Director will appoint the examination board for each academic year which will conduct its activities with one month of the end semester examination.  The department will analyze the findings of the report and take necessary corrective / preventive action(s) within the next one month.		<b><u>Responsibility</u></b>  COE and Heads of the Departments	<b><u>Target Date</u></b>  The procedure will be developed by March 31, 2015 and will be put up for approval of the academic and other bodies by May 2015 to be implemented from academic year 2015-16.
<b>Action No. 5</b>	<b><u>Gap identified: Research</u></b> <ul style="list-style-type: none"> <li>Create conditions where staff and students engage in research at the frontiers of knowledge.</li> <li>Ensure that academic staff engages in top quality research-led teaching.</li> <li></li> </ul>		

<b><u>Recommended Action(s)</u></b>		<b><u>Responsibility</u></b>	<b><u>Target Date</u></b>
<p>In the first phase, professional senior level courses will be identified in which the faculty will be requested to identify small research based projects from the course content. Groups of students will be allotted these projects under the supervision of these faculty members and will be evaluated at the end of semester.</p> <p>More number of PDF will be instituted by offering better fellowship as compared to other funding institutions. The faculty under whom PDF joins will be expected to share such load and improve the research output.</p> <p>Dean RSP will generate metrics to ensure that academic staff engages in top quality research-led teaching.</p>		DRSP and the HOD's	June 30, 2015
<b>Action No. 6</b>	<b><u>Gap identified: Research</u></b> <ul style="list-style-type: none"> <li>Research activity is in its infancy at Thapar and if it is to realize the objectives of its contemporisation programme, significant investment in staff and infrastructure will be required.</li> </ul>		
<b><u>Recommended Action(s)</u></b>		<b><u>Responsibility</u></b>	<b><u>Target Date</u></b>
<p>In each department, atleast one Research Centre in area of significant strength of faculty will be created. The centre will be identified and funded jointly through targeted project funding from the funding bodies as well as the University funds. The Research Centre(s) will also undertake consultancy and testing activities.</p> <p>The departments will be requested to identify at least one such centre during the next semester and then focus on developing infrastructure and staff in that area for the next two years to create a world class facility.</p>		DRSP and the HOD's	Identification of the proposed research Centre(s) by Feb 28, 2015.
<b>Action No. 7</b>	<b><u>Gap identified: Research</u></b> <ul style="list-style-type: none"> <li>Encourage and support staff to raise funding (particularly collaborative funding) involving industry and other academic institutions both inside and outside India.</li> <li>Steady flow of good full-time PhD students (encourage the top performers among Thapar BE and/or ME programmes.</li> <li>Offer exciting, well-funded projects to TU graduates in pursuing PhD's locally</li> </ul>		
<b><u>Recommended Action(s)</u></b>		<b><u>Responsibility</u></b>	<b><u>Target Date</u></b>
<p>In each department, a Research Incharge (RI) will be nominated. RI will channelize the faculty for writing projects. Interdisciplinary projects will be identified. Attempt will be made to get them funded from industries/government institutions.</p> <p>DST projects offered by different countries will be taken on</p>		Director, DRSP and the four HOD's	July 2015

<p>priority basis.</p> <p>Strength of regular Ph.D. students will be increased. This may need increasing the fellowships in line with what the Government agencies offer. The departments will be urged to accept only regular PhD students other than exceptional candidates from industry.</p>			
<b>Action No. 8</b>	<b><u>Gap identified: Research</u></b> <ul style="list-style-type: none"> <li>Mentoring, IPR and the formation of spin-out enterprises.</li> <li>An <b>integrated</b> research plan should be developed for the university, identifying selected areas in which there is potential to excel.</li> </ul>		
<b><u>Recommended Action(s)</u></b> <p>Providing the opportunity to students to develop a mentoring relationship with industrialists/ alumnus who share their educational and professional experience to help students achieve greater success in their academic and career pursuits. Hence organization of workshops with industrialist/alumnus to explore professional/career opportunities is required to mentor the students.</p> <p>Learning and teaching, curriculum design and research strategies will reflect changing expectations of how future graduates will contribute to the economy, academics in engineering and other innovative disciplines. Hence it is necessary to re-think undergraduate curricula to enhance students' entrepreneurial skills, which includes their awareness and competence in respect of intellectual property rights. There is no well-established pedagogy for educating engineers, scientists and innovators about intellectual property. By intended learning outcomes and assessment tasks, students can be encouraged to manage their learning about intellectual property rights.</p> <p>Enterprise creation: To enhance and increase student creation of new companies, we need to organize and deliver seminars to students that explains how to successfully create new companies, encouraging students to pursue enterprise initiatives and awards, provide support to new and existing spin out companies so they can grow and become sustainable by providing mentoring and helping them access personnel, funding and network.</p>		<b><u>Responsibility</u></b> Dean, Resource Mobilization & Organizational Effectiveness	<b><u>Target Date</u></b> 500 mentors to be identified in two years. First 50 will be identified by the end of July 2015  First draft of a revised curricula incorporating the proposed changes will be prepared by the end May 2015  Five start-ups by August 2015
<b>Action No. 9</b>	<b><u>Gap identified: Research</u></b> <ul style="list-style-type: none"> <li>Broad base strategic plans with industry partners to determine strategic fit. The outputs should include: focused placements for undergraduates, funding for full time PhD scholarships and development of enterprise PhDs</li> </ul>		
<b><u>Recommended Action(s)</u></b> <p>The area of Nanotechnology where several faculty are working will be undertaken as a broad area of cooperation during the first stage. Group of faculty from different departments will be</p>		<b><u>Responsibility</u></b> Director, DRSP and Head CILP and Associate	<b><u>Target Date</u></b> July 2015

<p>identified and accordingly the projects will be undertaken.</p> <p>Local and reputed industries from Punjab, Haryana will be tapped for industry based research projects. The trained Ph.D./M.Tech students will visit industry for the testing and this will also open path for their placements.</p> <p>TA fellowship and its number will be enhanced to attract more number of students. Moreover, students completing UG/PG program from TU will be offered TA Ship directly if they wish to join the Ph.D. programme.</p>		Dean Strategy	
<b>Action No. 10</b>	<p><b><u>Gap identified: International Collaboration</u></b></p> <ul style="list-style-type: none"> <li>To raise new funding</li> <li>Expose staff to global research and industry practice and state-of-the-art thinking.</li> <li>Faculty members should visit through international placements and sabbatical to Universities where research-led teaching is prioritized.</li> </ul>		
<p><b><u>Recommended Action(s)</u></b></p> <p>International collaboration will be encouraged between faculty so that the staff are exposed to global research and industry practice and state-of-the-art thinking. The terms of the Professional Development Allowance will be re-looked into to ensure that academic staff engages with their peers abroad.</p>		<p><b><u>Responsibility</u></b></p> <p>DOPA, Four Heads of Departments</p>	<p><b><u>Target Date</u></b></p> <p>Feb 28, 2015 to prepare a strategy to improve international collaboration.</p>
<b>Action No. 11</b>	<p><b><u>Gap identified: Publications</u></b></p> <ul style="list-style-type: none"> <li>Emphasis on publication in SCI journals.</li> <li>Participation in international conferences should be encouraged</li> <li>Create flexibilities in accommodating conference travel within the teaching timetable.</li> <li>Top conferences may also be noted in publication scores.</li> </ul>		
<p><b><u>Recommended Action(s)</u></b></p> <p>All faculty members will be asked to publish paper in SCI journals only having minimum of 0.5 impact factor.</p> <p>Funds will be created (use of PDA will be re-looked into) for attending and presenting papers in international conferences.</p> <p>Faculty will be encouraged to participate in conferences.</p>		<p><b><u>Responsibility</u></b></p> <p>DRSP and Four Heads of Departments</p>	<p><b><u>Target Date</u></b></p> <p>Jan 31, 2015</p>
<b>Action No. 12</b>	<p><b><u>Gap identified: Publications</u></b></p> <ul style="list-style-type: none"> <li>Construct reward schemes carefully to allow and encourage multidisciplinary and collaborative research. And Emphasis on publication in SCI journals.</li> <li>Top conferences may also be noted in publication scores.</li> <li>Practice of dividing credit associated with a publication by the number of authors could significantly hinder this.</li> </ul>		
<p><b><u>Recommended Action(s)</u></b></p> <p>Publications by faculty and/or students involving more than two units of TU and/or faculty from benchmarked Institutions to be</p>		<p><b><u>Responsibility</u></b></p> <p>DOFA</p>	<p><b><u>Target Date</u></b></p> <p>1 May 2015</p>

<p>given higher weightage in PIS.</p> <p>The top conferences shall be listed in consultation with Heads of Units and these are already considered during PIS Awards and in promotions.</p> <p>The practice of dividing credit associated with a publication by the number of authors will be discussed with all heads before implementation.</p>			
<b>Action No. 13</b>	<p><b><u>Gap identified: Facilities</u></b></p> <p>Investment in the highest level of instrumentation, data acquisition and computing equipment in general should be prioritized and supported</p>		
<p><b><u>Recommended Action(s)</u></b></p> <p>The University will develop a strategic plan that will be guiding document on future investments in research centres.</p>		<p><b><u>Responsibility</u></b></p> <p>Associate Dean Strategy</p>	<p><b><u>Target Date</u></b></p> <p>Feb 28, 2015</p>
<b>Action No. 14</b>	<p><b><u>Gap identified: Publications</u></b></p> <ul style="list-style-type: none"> <li>• At present, there is little or no computational modelling based PhD programmes.</li> <li>• Modelling studies and particularly those associated with in-house experimental work will generate significant added value to the research and increase quality research publication output. These should guide new staff hiring.</li> </ul>		
<p><b><u>Recommended Action(s)</u></b></p> <p>Mostly valid for Mechanical and Civil Engineering Departments. The departments will take necessary action in this regard.</p>		<p><b><u>Responsibility</u></b></p> <p>Four Heads of Departments</p>	<p><b><u>Target Date</u></b></p> <p>June 1, 2015</p>
<b>Action No. 15</b>	<p><b><u>Gap identified: Computing Facilities</u></b></p> <ul style="list-style-type: none"> <li>• Computing equipment is quite old and it is important to keep it up-to-date.</li> <li>• The provision of computing equipment and network connectivity is not scalable in its present form.</li> <li>• Planning and investment is needed to create a unit that could deliver the superior service that expansions will demand.</li> </ul>		
<p><b><u>Recommended Action(s)</u></b></p> <p>CITM will procure latest machines and already requested for space allocation for Data Centre and central computing facility; this facility will be made available to researchers/faculty members as per their requests.</p> <p>Data Centre and Network Operation Centre's network backbone will be provisioned for 10G connectivity. It will be budgeted in year 2015.</p> <p>Planned expansion is chalked out and within span of two years; we will have state-of-the-art network facility and ERP offerings at TU campus.</p>		<p><b><u>Responsibility</u></b></p> <p>Head CITM</p>	<p><b><u>Target Date</u></b></p> <p>1 Dec 2016*</p> <p>1 Dec 2015*</p> <p>1 Dec 2017*</p>



## **Best Practice -1**

### **1.0 Continual Improvement of academic processes and programs at Thapar University**

#### **2.0 Goal**

The aim of the practice followed by the University is to continually improve the effectiveness of its laid down systems and processes by regularly assessing and evaluating the extent to which the University quality policy and objectives are being attained. For this purpose, a quality policy has been established, displayed at prominent locations in the University and everyone has been made to understand the intent of the quality policy and the commitment contained in it. Quality objectives along with their means and measures have been established for various functions and levels. The management periodically reviews the policy and objectives for continuing suitability, adequacy and effectiveness by provision of adequate resources.

#### **3.0 The Context**

The University has committed itself to the development and implementation of a continuous improvement process for improving the effectiveness of the academic processes and programs. For measuring the effectiveness of the processes, key academic objectives have been identified. Targets are set against each of these objectives that define the expected level of attainment for each objective. The data is collected periodically from each stake holder at the end of each semester and reviewed in a meeting of the top officials of the University. Summary of the results of the evaluation indicating the level achieved is prepared and used as an input for setting targets for the next year. The results of these processes are utilized to effect continuous improvement of the academic processes and the programs offered. For doing this, assessment methods are used to gather the data upon which the evaluation of each objective is based.

#### **4.0 The Practice**

Each academic program completes a SWOT analysis at the beginning of each academic year in its faculty meeting through brainstorming. The results of the SWOT analysis are then used to identify key and critical areas of concern where action plans must be initiated to improve performance. These critical areas are then transferred to a “University Risk Management” (URM) sheet which clearly describes the risk of not undertaking this improvement in the short and the long term followed by an action plan, responsibility and the completion date till the time the risk level on the URM sheet is categorized as low. A blank sheet showing the URM form is given below:

**URM Sheet: Department Of Chemical Engineering, Thapar University, Patiala**

Location/ Function	Risk Description	Risk Level & Reasons (Why)	Action Steps	By Whom (Account- ability)	By When (Time frames)	How/Method	Target Risk Level	Comments



Also, targets are set for critical academic and research parameters critical for the growth of the University and are reviewed periodically. The targets are set for the following key academic performance indicators:

1. Academic Credit Score: The credit score is calculated for each program and is indicative of the course weight and the number of students who undertake that course. The score for a program provides an insight into the faculty requirements for that program and the teaching load of the department. This score is calculated separately for both UG and PG programs.
2. Faculty strength and student-teacher ratio
3. Number of faculty with PhD
4. Number of PhD's produced and admitted every year
5. Number of Publications in SCI journals
6. Number of sponsored research and infrastructure projects
7. Number and amount of consulting assignments
8. Number of full time Teaching Assistant/Research Scholars
9. Number of new UG or PG programs proposed
10. Student Placement separately for UG and PG
11. Collaborations, conferences and short term courses

The data is collected for each program and reviewed. The results of this analysis are used to plan targets for the subsequent years.

## 5.0 Evidence of Success

The action plan as listed in the URM sheets is monitored to evaluate the effectiveness of the actions taken. The abstract of the URM sheets for 2012-13 is as under:

There are in all 14 departments/school/functions for which the URM has been prepared along with the detailed SWOT of each departments. In all there are 62 identified Risks across the 14 departments. The risks have been categorized under broad headings such as faculty, research output, infrastructure, research scholars etc. The URM projects are periodically reviewed for evaluating the success of each project in reducing the risk.

The target setting for each department has helped to focus on its performance every year. The best performing department is announced on Teacher's day every year. A blank sheet for the research targets for the previous year(s) is given below.

<u>RESEARCH ACTIVITIES:</u>														
		DBT ES	CH ED	CIV IL	CS ED	EC ED	EI ED	ME D	SC BC	SM CA	SM SS	SP MS	SO M	T O T A L
SCI Journals														
	2009-2010													
	2010-2011													
	Proposed:20 11-12													
International Conferences														
	2009-2010													

	2010-2011													
	Proposed:2011-12													
Research Projects (Rs Lacs)														
	2009-2010													
	2010-2011													
	Proposed:2011-12													
Number of Projects														
	2009-2010													
	2010-2011													
	Proposed:2011-12													
Patents/Copyrights														
	2009-2010													
	2010-2011													
	Proposed:2011-12													
PhDs Awarded														
	2009-2010													
	2010-2011													
	Proposed:2011-12													
Consultancy & Testing (in lacs)														
	2010-2011													
	Proposed:2011-12													

## 6.0 Problems encountered and resources required

The University did not have much problem in implementing the above. Such practices are routinely used by the industry and corporate houses but are rarely used in academic institutions. So it needed some training and motivation to clearly explain the usefulness of these practices. The practice has been in place since the last more than two years and because of its immense benefits has been adopted throughout the University.

## **Best Practice - 2**

### **1.0 Performance Incentive Scheme for faculty who have excelled in teaching and research at Thapar University**

#### **2.0 Goal**

For Thapar University, the processes used to evaluate and provide feedback about the performance of the faculty working with us is extremely important. If these evaluation processes are properly designed, these can help the University thrive by providing appropriate rewards and encouragement for good performers, and guidance about how to improve their performance to others. The existing evaluation processes for faculty did not appropriately make the distinction based on performance and may result in lower morale, engagement and productivity. The University recognizes the importance of a faculty performance evaluation process that is fair and that provides productive and appropriate incentives to faculty. As a result, a new performance incentive scheme was designed to reward performers and encourage all others to improve their performance.

#### **3.0 The Context**

No faculty performance review process can be free of issues or problems. Bearing this in mind, a committee was constituted to review the existing performance review system and recommend changes and policies to improve the process. The committee formulated a new Performance Incentive Scheme (PIS) that is more transparent and better understood, more equitable, and provide more useful feedback to faculty members. The implementation of this new scheme since last 5 years has enhanced morale, rewarded good performers, motivated and reinforced productive activity of faculty at Thapar University. The aim of the new evaluation process is to appropriately quantify the academic and research performance of all faculty members at Thapar University through a self appraisal system wherein marks are awarded for pre-defined activities of a faculty during an academic year (July 1 to June 30 next year). The marks are awarded for all activities of faculty which directly contribute to attaining the documented quality policy and objectives of the University. The method is devised in a way so as to eliminate/reduce subjectivity of measuring performance of a faculty. The goal is create a measure by which faculty can self assess its performance. The good performers are rewarded with incentive for that year.

#### **4.0 The Practice**

The faculty is requested to fill up an online form wherein he reports his academic (teaching) and research performance besides other services or co-curricular activities he/she had undertaken during the previous year. The teaching performance is judged on the basis of results of a Student Response Survey (SRS) form for each faculty and each subject. The students are required to fill up this form online. The results of the survey are used as a measure of teaching potential and quality of a faculty. The scores are compiled using customized software. Based on the SRS score obtained (given by students) a teaching score for all the subjects taught by the faculty during the two semesters is generated. The research scores are awarded by considering publications, research projects, and student guidance during the year. For all other activities undertaken by the faculty during the year, perception score is given by the reporting officers. The total marks obtained by each faculty are then tabulated and sorted in a descending order. In order to make the scheme broad based, the University gives incentive to about 55% of the faculty strength and those eligible are divided into four groups A, B, C and D. The group A is awarded up to a maximum of three months of additional salary for the year. The Group B, C and D are given 1.5 months, 1 month and 15 days additional salary respectively for the year. The factors that are presently being considered for PIS evaluations are:

**(I) Teaching Quality:** Judged through performance in lectures, tutorials, and practical by using Student Reaction Survey results.

**(II) Professional / Career Development considers**

**Publications:** Faculty is awarded score for publications. Publishing in good journals (listed in SCI with high impact factor) are given higher marks. Non SCI publications are given lower scores. Since quality of publication is considered more important than mere quantity, the number of non-SCI publications that can be used for scoring are restricted during the year. The conference publications are given weightage. Further, for all publications the credit is divided equally amongst the co-authors.

**Projects:** Project amount received from outside agencies is considered. The score is given based on the amount received during the year and like in publications the credit is divided equally amongst the PI and Co-PIs.

**Student Guidance:** The faculty is awarded score for guiding PhD and Master's thesis. Again the credit is equally divided amongst the supervisors, in case there is more than one supervisor.

**(III) Perception:** Administrative Responsibilities, Student and academic activities and Relationship building activities are considered under "Perception".

## **5.0 Evidence of Success**

The new evaluation scheme has been in use since the last 5 years. The SRS scores have been solely used as a feedback tool for improving the performance of the faculty. The SRS scores emphasize on the primary responsibilities of a teacher and include feedback on intellectual competence, integrity, a spirit of scholarly inquiry, effective knowledge dissemination, improved ways of presenting material and the ability to stimulate and cultivate the intellectual interest of students. Most faculty members have responded favorably to this new system of evaluation of their teaching skills although some improvements may still be required. Research is a critical component of the University Quality Policy. In all, refereed publications of high quality (SCI/Impact Factor) are expected as evidence of scholarly productivity. Quality is considered more important than mere quantity. Significant evidence of research publications and earning sponsored projects is considered important for the growth of the academic profile of the University. There has been a significant increase in the research output of the University since this new scheme has been introduced. The number of SCI publications has increased significantly. Similarly, the number of sponsored research projects is also on the rise. There are over 60 ongoing sponsored projects at any given point of time and the number is going up. The research funding has also seen a significant jump.

The overall performance of each department is measured by commuting the individual faculty scores of the department obtained from the PIS score. The results are summarized and presented in a faculty meeting of the University. The overall score of each department is computed and the department with the highest score is awarded as the best for the year. This has created a healthy competition where each department is making efforts to excel in one or more parameters.

## **6.0 Problems encountered and resources required**

As expected there were many misgivings amongst the faculty about the new scheme of evaluation of faculty performance. Initially about 20 to 25% of the total faculty was given incentive. The number was raised to about 55% subsequently to make it broader based. All misgivings of the faculty in accepting the Performance Incentive Scheme were eliminated through a series of meetings and personal contacts by the Director and other senior functionaries of the University. The scheme has created a positive attitude and zeal to excel.

**Benchmarking scheme developed by Thapar University**

The University has used most of the quality benchmarks as given by UGC to create radars for measuring performance. The benchmarks for various activities of the University are proposed as under:

<b>ACADEMIC PARAMETERS</b>			
<b>S. No.</b>	<b>Indicators</b>	<b>Method of Computation</b>	<b>Benchmark value</b>
1	Frequency of Syllabus revision	No of subject in which major revision was done in last review / No of subjects being taught	100%
2	Average no of working hrs of library	No of hrs library is open/ total no of hrs in a year	100%
3	Average no of activities like conducted / year 1. Workshops 2. Seminars 3. Symposia/Conference		Per Dept/ School 1. Two 2. Two 3. One
4	Demand Indicator	Total no of admissions in all courses per year / total no of candidates who applied	1:10
5	New programs introduced in last year	New programs launched / total no of programs	5%
6	Percentage increase in books/journal in last year	No of books/journals purchased in last year / No of books available at the beginning of the year	5%
7	Utilization of Central Library	Total no of visits / Total no of students and teachers x 180	30%
8	Assessment of teachers by students	No of courses in which assessment has been introduced / Total no of courses	75%
9	Number of NET/SET/GATE qualified students	Total No of GATE qualified students admitted / Total applications for PG programmes	50%
<b>RESEARCH PROFILE</b>			
1	No of research publications per teacher per year in refereed journals	Number of Research Publications / No of teachers	1
2	Research grant received per teacher per year	Total research grant received / No of teachers	
3	Percentage of teachers attending seminars/ conferences by invitation or giving invited presentations per year	Total no of teachers attending seminars/ conferences by invitation or giving invited presentations / Total no of teachers	5%
4	Percentage of Departments/ Schools getting departmental support from various agencies like UGC, SAP, COSIST etc.	Total no of depts. who get support / Total no of departments/schools	20%
5	Percentage of faculty getting awards, honors	Total no of awards/honors / Total no of teachers	1%
6	Citation Index	Citation value of all research papers/ Total no of research papers published	1 per paper

7	Percentage of full time research scholars	Total no of full time research scholars / Total no of research students	50%
<b>GOVERNANCE</b>			
1	Actual teaching days per yr		180
2	Minimum workload of teachers		40 hours
3	Teaching – Non teaching ratio		1 : 1
4	Percentage of teaching posts filled up	Teaching posts filled / Total no of teaching posts	100%
5	UGC Regulations: Whether UGC directions followed for minimum Qualification	No of teachers qualified as per UGC regulations / total no of teachers	100%
6	Timely declaration of results	No of exams in which results were declared in time / total no of exams	100%
8	Resources generated through external resources	Resources generated through external sources / total plan budget for the year	20%
9	Percentage of depts. Collaborating with other agencies	Total no of collaborations / total no of departments	100%
10	Percentage increase in physical infrastructure	Increase in physical space / space at the beginning of the year	5%

## SWOT Analysis

Strengths	Weaknesses	Opportunities	Threats
<b>I – Faculty &amp; staff</b>			
<ul style="list-style-type: none"> <li>• Ideal combination of experienced and young faculty</li> <li>• Excellent teaching skills</li> <li>• Team spirit-get along</li> <li>• Have funded research projects</li> <li>• Freedom to work &amp; flexibility</li> <li>• Conducive work environment</li> <li>• Financial support to attend conferences, workshops</li> <li>• Computer, internet facility at offices and residences</li> <li>• PIS</li> <li>• Flexible cadre structure – growth opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Retention of faculty</li> <li>• Inadequate technical staff</li> <li>• Faculty strength is short</li> <li>• Student/teacher ratio is high</li> <li>• Lack of internet facility in one section of the labs</li> <li>• 70% faculty with PhD</li> </ul>	<ul style="list-style-type: none"> <li>• Collaboration with reputed research labs.</li> <li>• Inter-departmental research &amp; knowledge sharing</li> <li>• Consultancy</li> <li>• More number of qualified people willing to join at entry level</li> </ul>	<ul style="list-style-type: none"> <li>• Competition</li> </ul>
<b>II – Research and Development</b>			
<ul style="list-style-type: none"> <li>• Sponsored research projects</li> <li>• PhD students</li> <li>• ME dissertations gets some research funding</li> <li>• International and national print and online journals</li> <li>• collaboration</li> <li>• Strong research areas and groups</li> </ul>	<ul style="list-style-type: none"> <li>• Publications in SCI journals</li> <li>• Number of full time research scholars</li> <li>• Number of patents</li> <li>• Dedicated area specific research labs/ group research</li> <li>• Computational facilities needs improvement (hardware and software)</li> </ul>	<ul style="list-style-type: none"> <li>• Research bulletin, book writing</li> <li>• Many funding sources in govt and private which can be tapped</li> <li>• Institute – industry collaborations</li> <li>• Institute – institute collaborations</li> <li>• MoU's with institutions of repute</li> <li>• Establish centres of excellence in key areas</li> <li>• Tap talent from outside for knowledge up gradation</li> <li>• Encourage PhD/M.E. Dissertations on industry problems</li> </ul>	
<b>III – Student Intake</b>			

<ul style="list-style-type: none"> <li>• Intake quality of students at UG level</li> <li>• Counseling cell</li> <li>• Overall personality growth through finishing school</li> <li>• Societies activities</li> </ul>	Intake quality of PG and PHD students' needs improvement	Special coaching for weak students	
<b>IV – Teaching and Learning Process</b>			
<ul style="list-style-type: none"> <li>• Monitoring of instruction delivery process</li> <li>• Periodic curriculum review</li> <li>• Variety of UG/PG programs</li> <li>• Project semester, students projects</li> <li>• Student feedback – SRS</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of expertise in some areas</li> <li>• Number of free or professional electives</li> </ul>	<ul style="list-style-type: none"> <li>• Undergraduate programs in emerging disciplines</li> <li>• More industrial visits</li> </ul>	
<b>V – Infrastructure</b>			
<ul style="list-style-type: none"> <li>• UG/PG Laboratories</li> <li>• Basic infrastructure</li> <li>• Multi-media facilities in classrooms</li> </ul>	<ul style="list-style-type: none"> <li>• Phasing out of obsolete equipment and slow Laboratory upgradation</li> <li>• Maintenance of machines/infrastructure</li> <li>• Inadequate built-up space</li> <li>• Renovation of faculty offices required &amp; build a new seminar room</li> <li>• Number of class rooms</li> <li>• Power backup in some labs</li> </ul>	<ul style="list-style-type: none"> <li>• Department Library</li> <li>• Action on Industry Feedback</li> <li>• Involvement of industry in curriculum design</li> <li>• Seminar Room</li> </ul>	
<b>VI – Placement</b>			
UG Student Placement is close to 100%	<ul style="list-style-type: none"> <li>• PG students placement</li> </ul>		
<b>VII – General</b>			
<ul style="list-style-type: none"> <li>• Well established name of university brand name</li> <li>• Saleable &amp; strong UG program</li> <li>• Accreditation NBA/NAAC</li> </ul>		<ul style="list-style-type: none"> <li>• Department Mission/vision</li> <li>• Organization of short-term training programs, industrial programs</li> </ul>	



**ACADEMIC CALENDAR 2013-2014**

<b>FIRST SEMESTER</b>		
-	Registration* ( <b><i>OTHER THAN FIRST YEAR STUDENTS</i></b> )	22.07.2013 – 26.07.2013
-	Commencement of Classes	22.07.2013 at 13:00 Hours
-	Late Registration (With late registration fee)	29.7.2013 to 12.08.2013(with late registration fee of Rs 1000/-)
-	Teaching (45 days)	22.07.2013 to 20.09.2013
-	Mid-Semester Test	23.09.2013 to 28.09.2013
-	Teaching (25 days)	30.09.2013 to 01.11.2013
-	Mid Semester Break	02.11.2013 to 10.11.2013
-	Teaching (20 days)	11.11.2013 to 29.11.2013
-	End Semester Examination	02.12.2013 to 14.12.2013
-	Winter Break (22 days)	15.12.2013 to 05.01.2014
<b>SECOND SEMESTER</b>		
-	Registration*	06.01.2014 – 10.01.2014
-	Commencement of Classes	06.01.2014 at 13:00 Hours
-	Late Registration (with late registration fee)	13.01.2014 to 27.01.2014 (with late registration fee of Rs1000/-)
-	Teaching (45 days)	06.01.2014 to 07.03.2014
-	Mid-Semester Test	10.03.2014 to 15.03.2014
-	Teaching (45 days)	17.03.2014 to 16.05.2014
-	End Semester Examination	19.05.2014 to 31.05.2014
-	Summer Break (50 days)	01.06.2014 to 20.07.2014
<b>Summer Training for BE students after Second Year</b>		
-	Survey Camp (4 weeks): For Civil Engineering Students	
-	Practical/Workshop Training (6 weeks): For the Students of Disciplines other than Civil Engineering	

\* **‘Registration’** shall be treated as completed, provided:

- He/she has deposited the semester fee within the prescribed period for each semester.
- He/she has to secure a ‘fee slip’ from the accounts section to confirm registration within that prescribed period. Kindly bring the proof of deposit of fee to the accounts section to get the fee slip.

In case a student fails in either of the above within the prescribed time, he/she will be deemed as ‘not registered’ and can be registered only by paying ‘late registration fee of Rs 1000/- till the last dates of registration mentioned above. There shall be no registration after the elapse of period mentioned for ‘late registration’ above.

Abbreviations:

CAS	-	Career Advanced Scheme
CAT	-	Common Admission Test
CBCS	-	Choice Based Credit System
CE	-	Centre for Excellence
COP	-	Career Oriented Programme
CPE	-	College with Potential for Excellence
DPE	-	Department with Potential for Excellence
GATE	-	Graduate Aptitude Test
NET	-	National Eligibility Test
PEI	-	Physical Education Institution
SAP	-	Special Assistance Programme
SF	-	Self Financing
SLET	-	State Level Eligibility Test
TEI	-	Teacher Education Institution
UPE	-	University with Potential Excellence
UPSC	-	Union Public Service Commission

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