# SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING [DEEMED TO BE UNIVERSITY]

THE ANNUAL QUALITY
ASSURANCE REPORT
(AQAR) SUBMITTED BY
THE INTERNAL
QUALITY ASSURANCE
CELL (IQAC)



2014-15

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SSSIHL

# The Annual Quality Assurance Report (AQAR) of the IQAC (2014-15)

# Part - A

# 1. Details of the Institution

1.1 Name of the Institution	Sri Sathya Sai Institute of Higher Learning (Deemed to be University)
1.2 Address Line 1	Vidyagiri, Prasanthi Nilayam
Address Line 2	Anantapur District
City/Town	Puttaparthi
State	Andhra Pradesh
Pin Code	515134
Institution e-mail address	registrar@sssihl.edu.in
Contact Nos.	+91 8555 287239
Name of the Head of the Institution	on: Prof. K B R Varma
Tel. No. with STD Code:	+91 8555 289982
Mobile:	+91 8500746749
Name of the IQAC Co-ordinator:	Prof. V Chandrasekaran
Mobile:	+91 9866537010

<b>IQAC</b>	e-mail	address:
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vchandrasekaran@sssihl.edu.in

1.3 NAAC Track ID (For ex. MHCOGN 18879)

SSSIHL11303

1.4 NAAC Executive Committee No. & Date:

EC/54/RAR/076 Date: January 08, 2011

(For Example EC/32/A&A/143 dated 3-5-2004. Label This EC no. is available in the right corner-bottom of your institution's Accreditation Certificate)

1.5 Website address:

www.sssihl.edu.in

Web-link of the AQAR:

 $http://sssihl.edu.in/sssuniversity/Portals/0/Images/About\%20SSSIH\ L/AQAR/SSSIHL-AQAR-2014-15.pdf$ 

#### 1.6 Accreditation Details

Sl. No.	Crusta	Cmodo	CCDA	Year of	Validity
S1. NO.	Cycle	Grade	CGPA	Accreditation	Period
1	1st Cycle	A++	96%	2003	2008
2	2 <sup>nd</sup> Cycle	A	3.63	2011	2016
3	3 <sup>rd</sup> Cycle				
4	4 <sup>th</sup> Cycle				

In the first accreditation on 21<sup>st</sup> March 2003, the Sri Sathya Sai Institute of Higher Learning (Deemed to be University) was one of the very few Universities in India to be awarded an A++ rating (95 to 100 percentile) by the National Assessment and Accreditation Council (NAAC).

In January 2011, the NAAC reaccredited Sri Sathya Sai Institute of Higher Learning (Deemed to be University) with an 'A' Grade and a Cumulative Grade Point Average (CGPA) of 3.63 (on a scale of 4.00). This puts the Sri Sathya Sai Institute of Higher Learning among the top 7 out of 175 Universities accredited by NAAC.

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

23/06/2004

1.8 AQAR for the year (for example 2010-11):

2014-15

· · ·	AQAR submitted to NAAC after the latest Assessment and rexample AQAR 2010-11submitted to NAAC on 12-10-2011)					
<ul><li>ii. AQAR 2011-12 EC_54_</li><li>iii. AQAR 2012-13 EC_54_</li></ul>	/JP/SR/AQAR/2012/Ack/dt. 26/03/2012_(DD/MM/YYYY) RAR_076 dated 21/11/2012 RAR_076 dated 21/11/2013 RAR_076 dated 21/11/2014					
1.10 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					
(e.g. AICTE for Management	Courses and NCTE for Teacher Education Courses)					
Type of Institution Co-edu	cation Men 🗸 Women 🗸					
Urban	Rural  Tribal					
Financial Status Gran	t-in-aid    ✓ UGC 2(f)  ✓ * UGC 12B  ✓					
* Recognized under notification no.F.9-11/81-U.3, Government of India, Ministry of Education and Culture (Department of Education), New Delhi dt.10.11.1981 conferred by section 3 of the UGC Act 1956 (3 of 1956), the Central Government.						
Grant-i	n-aid + Self Financing   ✓ Totally Self-financing					
1.11 Type of Faculty/Programme	·					
Arts Scien	ce Commerce Law PEI (Phys Edu)					
TEI (Edu) 🕢 Engi	neering Health Science Management					
Others (Specify)	M.Tech.(Computer Science)					
	M.Tech.(Optoelectronics and Communications) and					
	M.Tech.(Nuclear Medicine)					

1.12 Name of the Affiliating University (for the Co	olleges)	Not appli	cable	
1.13 Special status conferred by Central/ State Gov	ernment-	- UGC/CS	IR/DST/DB	T/ICMR etc
Autonomy by State/Central Govt. / University				
University with Potential for Excellence			UGC-CPE	
DST Star Scheme			UGC-CE	
UGC-Special Assistance Programme	Yes		DST-FIST	Yes
UGC-Innovative PG programmes	Yes		Any other (Specify)	UGC DBT Projects DAE Project
UGC-COP Programmes				ISRO DRDO DST-TSDB
2. IQAC Composition and Activities				DST-ISDB DST-SERB SSSIHL funding
2.1 No. of Teachers	19			SSSITE Tunding
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	0			
2.6 No. of any other stakeholder and  Community representatives	0			
2.7 No. of Employers/ Industrialists	1			
2.8 No. of other External Experts	1			
2.9 Total No. of members	23			
2.10 No. of IQAC meetings held	0			

2.11 No. of meetings	with various stakeholders: No. 12 Faculty 2								
Non-Teaching Sta	ff 1 Students 4 Alumni 2 Others 3								
	In addition to the above meetings, the outcome of the following meetings with various stakeholders have also been used as inputs by IQAC:								
Committees that cater to academic standards at SSSIHL:									
	cater to quality of life at the different Campuses of SSSIHL: ership Committee								
• Board	cater to governance at SSSIHL:  of Management ing and Monitoring Board								
2.12 Has IQAC receiv	red any funding from UGC during the year? Yes No								
If yes, men	tion the amount NA								
2.13 Seminars and Co	nferences (only quality related)								
(i) No. of Semin	ars/Conferences/Workshops/Symposia organized by the IQAC								
Total Nos.	11 International 3 National 6 State Institution Level 2								
(ii) Themes  1) Math in Action (Role of Mathematics Applied in Contemporary World) 2) Computer Vision & Machine Learning 3) Algorithmic Thinking and Problem Solving 4) Frontiers in Nanoscience, Technology & Application 5) Interface in Chemical and Biological Sciences: Biochemical Exploration and Conceptualization (BEACON) 6) Big Data for Banking and Finance 7) Rural Entrepreneurship & Marketing 8) Habits for achieving Personal and Interpersonal Effectiveness 9) The Power of Values 10) Lean Six Sigma: A paradigm for Business Excellence 11) Applied Ethics									
Note: The institute cer	ntrally organizes various seminars/conferences/workshops/symposia to enhance the								

quality of knowledge under the respective departments wherein majority of IQAC members are

part of it. The IQAC takes note of progress of these activities

#### 2.14 Significant Activities and contributions made by IQAC

- Two new programmes MBA and M.Ed. were introduced for women students the Anantapur Campus in June 2014.
- New buildings at SSSIHL The Anantapur Campus for women which is the biggest campus of the university-both in terms of size and student numbers.
- Construction of new teacher's apartments
- Quarters that house the contingent staffs of the campus has commenced.
- The Prasanthi Nilayam Campus is enhanced with an Annexe building beautifully lit with 44,000 sq.ft. building spans over three floors and hosts a number of classrooms, a conference hall, offices and a large auditorium.
- At Muddenahalli Campus a new hostel for students has been added which accommodates up to 300 students.
- A consolidation of academic programmes led to the merger of two major departments –
   Management Studies and Commerce to form the Department of Management and
   Commerce.
- Interdisciplinary Science Colloquia All the Science departments (across campuses) of the
  university participate, using the videoconference facility on topics such as: Avoiding the
  Antibiotic Armageddon; Scalable Nano-manufacturing of Nanocarbon-based Supercapacitors for Next Generation Energy storage; Next Generation Catalysts for Fuel Cells;
  Transdisciplinary inspirations for Today's Innovative solutions; Design in Discovery of
  Drugs; Antioxidant Potential of Aniseeds (Pimpinella Anisum L.) and identification of
  Hytochemicals-An in Vitro study; Searches for new elements Past, Present and Future;
  and Mathematics Exploring into complexity.
- Online feedback mechanism for sustaining and improving Quality of Teaching:

An online teaching quality feedback mechanism started from winter semester of 2013-14 which is totally confidential in nature. A questionnaire specially designed with a 6 point scale is administered to the students and feedback is elicited from them on different parameters and dimensions of teaching quality. Different questionnaires have been designed for Theory, Practicals and Software Laboratories as the nature of teaching varies in each case. This is done at the end of each semester under the supervision of systems administrators without the involvement of teaching faculty to ensure confidentiality.

The feedback is then sent to the HoD and respective teachers for their perusal, reinforcement and improvement if any. The feedback is carefully studied by the HODs and in cases where corrective action or counselling of the faculty members is required. It is undertaken by the HODs. A word of encouragement is shared with the faculty member who according to the students is performing well.

Teaching Quality Reports of the faculty members form an important component in ascertaining career advancement of teachers. The reports are studied in detail by the Vice-chancellor of the university in the meeting of Selection Committee, in arriving at a decision regarding the same.

• Promoting Excellence in Research and Teaching:

The "Sai Krishna Award for excellence in research and teaching" has been instituted to recognize the prominent researchers and teachers at the Sri Sathya Sai Institute of Higher Learning each year. This award is given for excellence in Research and for excellence in teaching on alternate years.

The research awards are given for excellence in research in three categories viz., **a.** Sciences **b.** Management, Commerce, Economics and Education **c.** Languages and Philosophy.

The teaching awards are given, one for each campus of the University.

Steps are being taken to construct a State-of-the-art Central Research Instruments Facility (CRIF). This will go a long way in promoting Research culture in the university.

- Examination section reforms Electronic Document Dispatch & Receipt System (EDDRS) and Question Paper Scrutiny Board (QPSB) meetings were introduced as a quality measure.
- One in five teachers are residential (hostel) in this Integral Education system.
- Teaching faculty with Ph.D. and teaching experience.
- Online Feedback mechanism for reviewing and improving Quality of Teaching.
- Recruitment of faculty as per UGC's standards. (14 recruitments at faculty level were made in the year 2014-15).
- Final year postgraduate students (56%) are encouraged to appear for national examinations such as the GATE/JEST, DBT, CSIR-UGC NET etc.
- Collaborative research with sister organisations, Linkages and Research for Societal Benefit.
- Engaging Young Faculty Members in Research.
- Promotion of Public Awareness of SSSIHL's Contribution and Quality Education.
- Sri Sathya Sai Values based Integral Education System is internalised. The institute aims at
  producing students who are academically sound, socially responsible and spiritually aware. The
  way of life at this institute holistically provides the necessary foundations to produce good
  citizens.

# 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 are compared to identify the gaps and decide future course of action.

The initiatives that the institute needs to take to improve and sustain quality in teaching and research were discussed in the meeting of IQAC. The points that emerged from this discussion are listed below.

	Plan of Action	Outcome / Achievements
•	Promoting Excellence in Research and Teaching:	Dr.(Ms) T R Rajeshwari, Associate Professor, Department of Commerce, Anantapur Campus → Winner of the Sai Krishna Award for Excellence in Teaching (2014/15),
		Dr. Shailesh Srivastava, Asst. Professor, Department of Physics, Prasanthi Nilayam Campus → Winner of the Sai Krishna Award for Excellence in Teaching (2014/15),
		Sri Rajkumar Jain, Associate Professors, Department of Physics, Brindavan Campus → Winner of the Sai Krishna Award for Excellence in Teaching (2014/15), and
		Sri V Bhaskaran, Asst. Professor, Department of Mathematics and Computer Science, Muddenahalli Campus → Winner of the Sai Krishna Award for Excellence in Teaching (2014/15)
•	Collaborative Research with National and International Agencies to give a fillip to research quality	Active Collaborative Research is seen in (i) collaborations with Food and Drug Administration (FDA), USA in areas such as rapid detection of endemic diseases, (ii) diabetic retinopathy, (iii) development of cost effective multimodal microscope, (iv) regenerative medicine, (v) tissue engineering, as well as (vi) collaborations on multiple research projects with Sri Sathya Sai Institute of Higher Medical Sciences (SSSIHMS).
•	Faculty Training in- House and in Other External Agencies:	Yearly faculty workshops were organized in the last week of May every year. The training for young faculty was provided with regards to question paper setting, evaluation, and other rules of engagement.  Examination workshop was also conducted in the current academic year.
•	Well-Structured UG-PG-MTech-PhD Programs and augmenting with new programs:	Courses were restructured and revamped based on the inputs received from alumni, industrial experts and guest faculty from time to time. Based on the inputs received from different stake holders together with the latest trends in various fields, the BOS proposes changes and modifications in the programmes.
		A well formulated and comprehensive annual report is brought out by the Institute every year reporting the milestones achieved in the field of Quality education and other dimensions of holistic development being undertaken. Link for Annual Report of 2014-15:

http://www.sssihl.edu.in/sssuniversity/portals/0/Images/ Resources%20and%20Help/Publications/SSSIHL-AR-2015-web-v2.pdf

**Promoting Public** Awareness of SSSIHL's Contribution and its involvement in imparting Quality education

As a part of creating awareness about the institute for prospective applicants during the admissions season, admissions posters briefly describing the salient features of the value based education at is circulated to all the major schools and universities across India. In addition, advertisements are published in two major national newspapers of India namely 'The Hindu' and 'Times of India'.

Help of the Sri Sathya Sai Seva Organization (SSSSO), a sister organization of SSSIHL is taken to create awareness about this unique model of value based education across the country. This is done through the sevadal volunteers and office bearers of SSSSO.

Leadership Team

Leadership Team consists of Vice-Chancellor, Registrar, Controller of Examinations, Directors of the Campuses, Wardens of the Campuses, Heads of Departments and Associate Heads of Departments of the Institute. This has been established on 7th Jan 2015. This team takes leadership role in setting an academic roadmap for the institute. It also deals with administrative aspects in dealing with the policy, regarding extra classes, support to young faculty, use of expertise available, role of HoDs, uniform policy across campuses, students appearing for national examinations, orientation to newly joined faculty, mentoring of young teachers, workshop on examination, evaluation and question paper setting, evaluation of various aspects of the Sri Sathya Sai System of Integral Education, Integral Items – This plays an active role of quality assurance as per IOAC.

**Electronic Document** Dispatch & Receipt System (EDDRS)

-- a quality measure

The EDDRS (Electronic Document Dispatch & Receipt System): For the sake of hastening the process of completion of dispatch of QP Setting orders to the Internal/External Examiners and also receipt of the same using e-mail the EDDRS was introduced. In this process, the postal transit of Parcel/Post to the Examiners to & fro, for about 8 - 10 days of time, has been abridged to one day only. The appointment letter along with all its enclosures (such as paper syllabus, question paper pattern, previous years question paper as the model, remuneration claim form, etc.) are dispatched as soft copies by email to the official mail id (or mail id as furnished) of the examiners. There will be no dispatch by post, unless a special request is made to this effect by any particular examiner.

The ESE question paper / synopsis, set by the examiners (either by external examiners or by our Institute teachers) are sent by confidential email of the Examination Section of SSSIHL, designated for this purpose. In this connection, a separate official mail id was created for the purpose of use in the EDDRS. EDDRS in combination with Question Paper Scrutiny Board (QPSB) which has been in place from the academic year 2011-12 has streamlined the whole process.

BENEFITS
1. Use of the EDDRS for dispatch of examiner appointment letters and subsequent receipt of question papers / synopses from examiners cuts down the process cycle time (time from request to examiner for question paper setting to receipt of question paper from examiner).
2. The reduction in process cycle time becomes more significant in the case of external examiners who are located far away from Puttaparthi (headquarters of SSSIHL) in Andhra Pradesh.
3. Currently the invitation letters to the examiners to set question papers / synopses and the valuation request letters to examiners for valuation of answer scripts are also dispatched by the Examination section of SSSIHL by email. Therefore, the new IT enabled initiative of EDDRS for ESE question papers / synopses is an extension to the already existing IT enabled process.
4. In general, most examiners find the process of dispatching question papers / synopses by email to be far simpler and examiner friendly than dispatching by registered post; as all examiners have ready access to their personal or official computer systems with internet connectivity.
5. The new IT enabled process is found to be fulfilling all requirements of confidentiality as expected of any such process involving institute Examination and hence there is no compromise at all in this regard. The QPs are encrypted and passwords are communicated separately to

\* Attached the Academic Calendar of the year as Annexure-I.

2.15 Whether the AQAR was placed in statutory body Yes ✓ No ✓						
Management	✓	Syndicate	Any other body	Board of Management		

maintain confidentiality

Provide the details of the action taken

AQAR along with Annual Report presented in Board of Management on 21/11/2015

The points stated in AQAR reflects in the newly designed Annual Report of the institute. The key points and achievements are figured in comparison with the National averages in the Annual Report. The infographics provide qualitative status w.r.t. NAAC parameters and national averages.

# Criterion – I

# 1. 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	9	0	9	9
PG	6	0	6	6
UG	9	0	9	9
PG Diploma	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Advanced Diploma	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Diploma	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Certificate	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Others	5	1 (M.Ed.)	6	6
(Professional)				
Total	29	1	30	30
Interdisciplinary	1 *		1	1
Innovative	2 #		2	2

<sup>\*</sup> M.Sc Nanoscience & Nanotechnology

# M.Tech in Nuclear Medicine

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

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	✓ AII
Trimester	
Annual	

1.3 Feedback from stakeholders* (On all aspects)	Alumni	✓	Parents	✓	Employers	✓	Students	✓	
Mode of feedback :	Online	<b>✓</b>	Manual	<b>✓</b>	Co-operatin	g sch	ools (for PE	EI)	

In order to ensure that the academic curriculum of the Institute is in sync with the developments happening in the scientific, economic and business world, regular interactions are held with the

<sup>#</sup> M.Sc Nanoscience & Nanotechnology,

alumni, employers, members from the scientific and business community. Interactions are also held with parents and students of the Institute to analyse and study the impact of the inputs on their career and all round personality development.

The Alumni actively participate in providing feedback on the practical relevance of the courses that they have undergone on their work/profession. They also share the new developments which have happened in the field of their work/profession, which may be included as a part of the curricula. They help the alma mater in the conduct of annual workshops, seminars, and conferences. They are a part of the placement structure for the outgoing batch of students each year by running a programme which makes the students industry ready.

The feedback from different stakeholders are factored in the curricular design and upgradation, like starting new courses, new chapters to the syllabi of several courses in various disciplines and modifying the curriculum vis-à-vis the latest trends in the industry and academia.

Students: Through formal and informal interactions in and outside the classroom and through written course-wise feedback every semester. **Refer to Annexure-II** for the Questionnaire of the online teaching quality feedback. The students also have interactions with the HoDs, Director, senior faculty and administration where their inputs are taken.

Industry: The industrial experts and employers of our students visit the institute for guest lectures, colloquia and give their valuable feedback regarding all aspects of the institute. (**Refer Annexure-III**)

Parents: A comprehensive report on the performance of the students, both academic and integral item is sent to the parents when the students go for vacation. The parents share their feedback based on the report and their observations on the growth/development of their ward. A formal/informal interaction with the parents of each ward to appraise them about the performance of the student and elicit feedback about the different dimensions in the student life is also carried out at regular intervals.

Employers: The employers of our students generally use the alumni who are a part of the placement team, to share feedback on the performance of the newly recruited students to reinforce the current practices adopted by the various departments of the institute and at times also suggest introduction of new techniques which can further augment the skill set of the students.

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

Changes in the syllabus and academic regulations were proposed by the following departments in the year 2014-15 in the Academic Council meeting:

Syllabi of various courses were revamped or updated due to the following objectives:

- o Introduction of electives which are of current interest in the industry
  - New elective of Commutative Algebra in M.Sc Mathematics
  - New electives of Optofluidics for Lab on Chip Devices and Biomedical Optics in M.Tech Optoelectronics and Communications.
- o Adding topics keeping in view the current trends and to enrich a particular course
  - Adding latest topics in PMCA-304 Network Security in Integrated MCA course
  - Adding section of lasers and geometrical optics in PPHY-204: Modern Optics for MSc Physics

- o To remove redundancy and provide clarity to the students.
  - Change PMAT-403 'Theory of Statistics' to 'Computational Statistics' in M.Sc Mathematics
  - Removal of section on Quantum Field Theory in PPHY-302- Advanced Quantitative Methods in MSc Physics
  - Removal of Non-credit courses PNAN-109, PNAN-209, PNAN-307 & PNAN-408 in M.Sc (Nanoscience and Nanotechnology)
  - Adding new chapters and deleting old chapters in PBIO-103 Plant Systematics and Conservation in M.Sc Biosciences
- The textbooks and reference books were also updated to the latest editions so that the students study the latest developments in their field.
  - Revised Text book for UMAT-201A- Probability for B.Sc MPC.
  - Recommended to use Edition 3 instead of Edition 2 for PMCA-302: Artificial Intelligence for Integrated MCA course
  - New Text Book for ISKE 17- Machine Learning, M.Tech Computer Science
- Splitting of the theory course into theory and practical for hands-on experience to students
  - Computational Finance in MBA/MBA Finance
- o Redistribution of credits for better teaching and learning
  - Increase in Credits from 3 to 4 for UPHY-503 Quantum Physics and UPHY-601 Solid State Physics
- New modalities and guidelines for various modes of evaluation for End Semester Examination papers and various Viva-voce.
- 1.5 Any new Department/Centre introduced during the year. If yes, give details.

MBA course in the Department of Management Studies was added in the women's campus in addition to the men's campus.

Introduced two year M.Ed. Programme for women at Anantapur Campus in 2014-15.

One year B.Ed. Programme has been changed to two year B.Ed. Programme as per new NCTE guidelines.

# Criterion – 2

# 2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
161	79	34	25	23*

<sup>\*</sup> Teaching Assistant 12, Part-time 3, Adjunct faculty 3, Others: Information Scientist = 1, Placement Officers 1, Lab Technical Staff = 3

2.2 No. of permanent faculty with Ph.D.

97/161

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

Asst. Professors		Associate Professors		Professors		Professors Others(Rese arch Faculty)		Total	
R	V	R	V	R	V	R	V	R	V
12	0	1	0	-	2	2	0	15	2

2.	4	No.	of	Guest	and	V	isitin	0	faculty	and	Tem	porar	V

NA	162	15 *
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<sup>\*</sup> Teaching Assistant 12, Part-time 3,

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	62	75	
Presented papers	39	22	7
Resource Persons	4	8	13

- 2.6 Innovative processes adopted by the institution in Teaching and Learning:
  - Organizing hands on workshops to give practical exposure to students and help them equip the
    required skill sets. For e.g. hands on workshop Algorithmic Thinking and Problem Solving
    conducted by Dept. of Physics, Computer Vision and Machine Learning by Dept. of Mathematics
    & Computer Science etc.
  - The University operationalizes its goals and objectives through a **unique and innovative** Sri **Sathya Sai System of Values-based Integral Education** which aims at developing a balanced personality. It takes care of Intellectual, physical and emotional development of the students and makes it a **modern Gurukula**. The Sri Sathya Sai values-based integral education system aims to seamlessly blend high academic standards along with the inculcation of basic human values in its students. This university is a modern *Gurukula*, a place where teachers and students live and grow together in love and wisdom. This system of education is being followed in the institute right from its inception. This helps the students to gain leadership skills, communication skills, experiential skills to become a good citizen with all round holistic development.
- 2.7 Total No. of actual teaching days during this academic year

197

2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination,

Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

Double Valuation, Online MCOs via LMS of E-Guru

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

Department of Mathematics & Computer Science-20, Physics-15, Chemistry-15, Biosciences-19, Food & Nutritional Sciences-5, Management and Commerce-25, Economics-6, Education-5, English-11 and Honorary faculty, teaching assistants and adjunct faculty etc.

2.10 Average percentage of attendance of students

95

# 2.11 Course/Programme wise distribution of pass percentage:

Title of the Programme	Total no. of students		I	Division		
Frogramme	appeared	Distinction %	I %	II %	III %	Pass %
Ph.D	7	-	_	-	-	100
M.Phil.	3	-	-	-	-	100
M.B.A	27	32	54	14	-	100
M.B.A in	36	35	38	27	-	100
Finance						
M.Tech. in	13	55	45	-	-	100
Computer						
Science						
M.Tech. in	8	100	-	-	-	100
Applied Optics						
M.Sc. in	9	100	-	-	-	100
Mathematics						
M.Sc. in Physics	9	100	-	-	-	100
M.Sc. in	4	100	-	-	-	100
Nanoscience and						
Nanotechnology						
M.Sc. in	7	100	-	-	-	100
Chemistry						
M.Sc. in	12	92	8	-	-	100
Biosciences						
M.Sc.(Food	3	100	-	-	-	100
Science and						
Nutrition)						
M.Sc.(Food	4	100	-	-	-	100
Technology)						
M.A. in English	4	50	50	-	-	100
Language &						
Literature						
M.A. in Telugu	1	-	100	-	-	100
Language &						
Literature						100
M.A. in	7	58	42	-	-	100
Economics		1.1	20			0.0
B.A.	31	44	38	8	-	90
B.Sc.(Hons)	4	50	50	-	-	100
Economics	10	70	<b>50</b>			100
B.A. (Hons.)	10	50	50	-	-	100
Economics			4.2			100
B.Sc. Home	7	57	43	-	-	100
Science	22		4.0			
B.Sc. (Hons.)	30	57	40	3	-	

Biosciences						
B.Sc. (Hons.)	20	58	24	18	-	100
Chemistry						
B.Sc. (Hons.)	29	41	56	-	-	97
Mathematics						
B.Sc. (Hons.)	28	61	39	-	-	100
Physics						
B.Com.(Hons.)	77	48	39	-	-	87
BCA	19	63	37	-	-	100
BBM	30	20	70	10	-	100
B.Ed.	10	72	19	9	-	100
M.Ed.	9	78	2	-	-	100

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

Through reports from the departmental committees held at every month, Research Advisory Board, Academic Council meetings, Examination Committee, and performance of students results, performance of students at national level exams etc.

# 2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	Number of faculty benefitted
FDP / Refresher courses	3
UGC – Faculty Improvement Programme	0
HRD programmes	0
Orientation programmes	1
Faculty exchange programme	0
Staff training conducted by the university	Annual Faculty Development Programme  Department of Mathematics & Computer Science-20, Physics- 15, Chemistry- 15, Biosciences- 19, Food & Nutritional Sciences- 5, Management and Commerce- 25, Economics- 6, Education- 5, English- 11 and Honorary faculty, teaching assistants and adjunct faculty etc.
Staff training conducted by other institutions	6 (IISc)
Summer / Winter schools, Workshops, etc.	12 workshops/seminars 4 departments 76 Faculty
Others	-

#### 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	66	0	0	0
Technical + Support Staff	93	0	2	0
Total	159	0	2	0

# Criterion – 3

# 3. Research, Consultancy and Extension

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

The "Sai Krishna Award for excellence in research and teaching" has been instituted to recognize the prominent researchers and teachers at the Sri Sathya Sai Institute of Higher Learning each year. This award is given for excellence in Research for a given year and for excellence in teaching the next year and so on, alternately.

The research awards are given for excellence in research in three categories viz., **a.** Sciences **b.** Management, Commerce, Economics and Education **c.** Languages and Philosophy.

The teaching awards are given, one for each campus of the institute.

The Research Advisory Board of the institute monitors and gives inputs to faculty in Research, Consultancy and Extension. A state-of-the-art Central Research Instruments Facility is being formulated in the near future.

#### 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	8	12	4	4
Outlay in Rs. Lakhs	₹ 378.61	₹ 515.32	₹ 136.61	₹ 104.60

#### 3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	-	2	1	1
Outlay in Rs. Lakhs	-	₹ 3.91	₹5	₹5

# 3.4 Details on research publications\*

	International + National	Others
Peer Review Journals	109	Books = 2
Non-Peer Review Journals	-	Sanskrit Articles
e-Journals	1	= 16
Conference proceedings	119	- 10

<sup>\*</sup> Please refer to Annexure-V

3.5 Details on Impact factor of publications:

Range	0.35 - 6.945	Average	2.527	h-index	9	Nos. in SCOPUS	54

PS: Acta Crystallographica Section E: Crystallographic Communications – 0.35

Journal of Power Sources – 6.945

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 (Rs. in lakhs)	Received (Rs. in lakhs)
Major projects: 1. Near-Real-Time Super Resolution of Aerial Video (Visual and IR) Sequences for Defence Applications	3	DRDO ER & IP, Delhi	₹ 48.76	₹ 35.60
2. Elliptic curve cryptography	4	Elliptic curve cryptography – ISRO-RESPOND	₹ 17.70	₹ 1.26
3. Diabetic Retinopathy Screening Tool	3	Zentron Labs – Bangalore	₹ 10	₹ 6.02
4. Studies on thermoelectric performance of nanostructured Bismuth Telluride and Lead Telluride Nano composites grown via novel solvothermal nanoplating technique	3	UGC-DAE-CSR	₹10	₹ 2.29
5. Real time motion compensation, image enhancement and feature extraction of moving targets in ISRO	4	ISRO DRDO	₹ 24.84	₹ 2.18
6. Design and characterization of optofluidic resonator geometries for biomedical sensing applications	5	UGC-DAE-CSR	₹ 6.81	₹ 2.29

7. PG Teachning	5	DST	₹ 162	₹ 20
Programme (M.Sc./M.Tech.) in Nano Science and Technology - M.Sc.(Nanonscience and Nanotechnology)	3	DST	(102	<b>X</b> 20
8. Regiospecific Functionalisation of Anisotropic Nanoparticles and Implications Towards Generation of Plasmonic Metal Nanoclusters	3	DST INSPIRE Faculty award	₹7	₹7
9. Application of plasmonic technologies and microbes-fortified biosorbents for efficient integrated bioprocessing	3	DBT	₹ 75.83	₹ 16
10. Develop Interfacial Chemistry Based Structure- Property Relationship in Nanodielectric Composites for Enhanced Energy Storage Applications	2	DST-SERB	₹ 28.61	₹ 4.50
11. Evaluation and Characterization of ESBL producing pathogenic Gram negative Enterobacteriaceae	3	DST-SERB	₹ 19.80	₹ 4.11
12. Modification of a planar gamma camera and its upgradation for supporting education, training and research in medical imaging	3	DAE BRNS	₹70	₹ 2.29
13. Design and development of multimodal optical microscope using fourier optical image	3	DST III	₹ 29.12	₹ 6.08

processing				
Minor Projects	3 2	NBHM/DAE UGC	₹ 1.91 ₹ 2	₹ 3.91
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College				
Students research projects- Lean Six Sigma Interventions* (other than compulsory by the University)	6 months	SSSIHL		
Any other(Specify)				
Total	13	13	₹ 515.38	₹ 113.53

<sup>\*</sup> Lean Six Sigma interventions carried out for the sister organizations of SSSIHL solely by students of MBA which are then certified by Lean Six Sigma black belt professionals. These are carried out in the odd semester i.e. between June- October every year. There are generally 6-7 such projects every year. These interventions improve the methodology to eliminate problems and inefficiencies to provide a better response to the consumer's needs.

3.7 No. of books published	l i) With ISBN No	).	Chapte	ers in Edited Books	
	ii) Without ISBN	No. 2			
3.8 No. of University Depa	artments receiving f	unds from			
	UGC-SAP 1	CAS		DST-FIST 1	
	DPE			DBT Scheme/funds	
3.9 For colleges	Autonomy	СРЕ		DBT Star Scheme	
	INSPIRE	CE		Any Other (specify)	
Not applicable					
3.10 Revenue generated through consultancy		The outcomes of any innovation is made available for all those who can benefit from them, without any			
	charge. As a matter of policy, the innovations are				
		conceived as contributions of knowledge for the benefit			
			•	stitute provides education at all	
		levels and	in all discir	olines TOTALLY FREE OF	

exploitation.

COST. The innovations are focused on the regional and socio-economic needs in the neighbourhood areas of the Campuses and also on the needs of the state(s)/nation. They are not pursued with the objective of commercial

3.11 No. of conferences organized by the Institution 2	2
--	---

Level	International	National	State	University	College
Number	1	1			
Sponsoring	ICMR, Tata	SSSIHL			
agencies	Chemicals,				
	SERB,				
	DRDO,				
	SSSIHL				

agencies	Chemicals, SERB, DRDO,						
	SSSIHL						
3.12 No.	of faculty served	as experts, cha	rpersons or re	source person	ns- 18		
3.13 No.	of collaborations	In	ernational	Nationa	al 2	Any other	
3.14 No.	of linkages create	ed during this y	ear 6				
INTI	ERNATIONAL						
	The Department of the Research (CB)						Evaluation
A	The Department of Physics has active research collaboration with Department of Physics and Astronomy, Clemson University, SC, USA in the areas of Nonlinear Optical studies and Surface Plasmon Coupled Emission (SPCE) of Nanomaterials.						
fe	<ul> <li>The department of Biosciences in collaboration with Dr Indira Hewlett, US-FDA, Bethesda USA, for investigation of Nanotechnology based diagnosis for TB, HIV, Influenza, <i>Chickungunya</i> and Dengue virus.</li> </ul>						
	The department of Mathematics and Computer Science has signed an MoU with Intel Corporation, Santa Clara, CA, USA for collaboration in HiPC projects.						
NATI	ONAL						
	The Department of Biosciences has signed an MoU with Dr. V Mohan, Madras Diabetic Research Foundation, Chennai, to identify molecular markers in type II diabetes patients.						
<ul> <li>The department of Mathematics and Computer Science has signed an MoU with Zentron Labs India for a Diabetic Retinopathy Project – converting research to social impact a product for societal use.</li> </ul>							
3.15 Tota	3.15 Total budget for research for current year in lakhs:						
From Funding agency		₹ 557.75	From Ma	nagement of	University	/College ₹ 2	6.99
Total		₹ 584.74					

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	0
Ivational	Granted	0
International	Applied	0
International	Granted	0
C	Applied	0
Commercialised	Granted	0

\* SSSIHL

3.17 No. of research awards/ recognitions received by faculty and research fellows of the institute in the year 2014-15\*

	Total	International	National	State	University	Dist	College
ſ	4	3	1	0	NA	NA	NA

<sup>\*</sup> Awards received for best paper presentation

3.18 No. of faculty from the Institution who are Ph. D. Guides and students registered under them	25       69
3.19 No. of Ph.D. awarded by faculty from	the Institution 7
3.20 No. of Research scholars receiving the	Fellowships (Newly enrolled + existing ones)
JRF 44 SRF -	Project Fellows 8 Any other* 17

# 3.21 No. of students Participated in NSS events:

The NCC aims at developing character, comradeship, discipline, a secular outlook, the spirit of adventure and ideals of selfless service amongst young citizens. Source: <a href="http://nccindia.nic.in/en/node/141">http://nccindia.nic.in/en/node/141</a>

National Service Scheme (**NSS**) was introduced in 1969 with the primary objective of developing the personality and character of the student youth through voluntary community service. 'Education through Service' is the purpose of the **NSS**. Jul 23, 2018.

The sole aim of the NSS is to provide hands on experience to young students in delivering community service. Source: <a href="https://nss.gov.in/">https://nss.gov.in/</a>

In line with this overarching objective, the Sri Sathya Sai System of Integral Education that has been developed and is being followed at this institute has a packed schedule that includes academics and participation in various curricular and co-curricular activities throughout the year that include Sports and Games, participation in cultural activities (music, dramatics, etc.), Social Service (Grama seva) etc. The institute aims at producing students who are academically sound, socially responsible and spiritually aware. The way of life at this institute holistically provides the necessary foundations to produce good citizens.

	University level State level
	National level International level
3.22 N	o. of students participated in NCC events:
	University level State level
	National level International level
3.23 N	o. of Awards won in NSS:
	University level State level
	National level International level
3.24 N	o. of Awards won in NCC:
	University level State level
	National level International level
3.25 N	o. of Extension activities organized
	University forum * 1 College forum** 4
	NCC NSS Any other
	* Grama Seva
	** Every campus conducts their own extension activities like river cleaning up, leper colony service, poor feeding, village adoption programmes etc.
3.26.	Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility
Other I	Extension Activities:
0	The Anantapur Campus faculty of the departments of Bioscience and Home Sciences visit the neighbouring areas to advice women and others about health and cultivation. This enhances the development of appropriate fruit and vegetable preservation technologies for providing avenues for self-employment to rural women. They also taught the newer packaging technologies for rural level product developments (2007 onwards)
0	This UGC projects viz. 'Food and nutraceutical applications of <i>Aloe Vera</i> gel' & 'Impact of gamma irradiation on shelf life extension of selected fruits and vegetables grown in Anantapur District' (2012-14) which have social relevance in the development of therapeutic food products that are beneficial especially to diabetics as a natural alternative therapy; and have commercial

The institute thus does not desire to participate in National University games, NSS, NCC etc.

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useful technology to farmers, exporters and consumers respectively.

application of radiation technology for the preservation of fruits and vegetables and is very

# Criterion - 4

# 4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly	Source of Fund	Total
		created		
Campus area	147	NA	NA	147
_	acres**			acres
Class rooms	154	24 &&	UGC and SSSCT	178
Laboratories	35			35
Seminar Halls	5			5
No. of important equipments		24	UGC, DRDO,	24
purchased (≥ 1-0 lakh) during			DST SSSIHL etc.	
the current year.				
Value of the equipment	₹ 757	₹ 1271	UGC, DRDO,	₹ 2028
purchased during the year (₹ in	Lakhs	Lakhs	DST, SSSIHL	Lakhs
Lakhs)			etc.	
	(2013-14)	(2014-15)		
Others \$\$		Hostel	SSSCT	
		Extension		
		buildings		

&& Another new building is ready for operation by Nov. 2014. This 44,000 sq. ft. Extension Building (ground plus two floors) will house 24 classrooms (including 6 smart classrooms), a 250-seat conference facility, computer center, and staff rooms along with an enclosed quadrangle of around 3,500 sq. ft.

- \*\* Total Area: The Sri Sathya Sai Institute of Higher Learning (Deemed to be University) comprises four Campuses viz.,
- 1) Prasanthi Nilayam Campus for men at Prasanthi Nilayam, Anantapur District, Andhra Pradesh
- 2) Anantapur Campus for women at Anantapur, Anantapur District, Andhra Pradesh
- 3) Brindavan Campus for men at Kadugodi, Whitefield, Bangalore, Karnataka and
- 4) Muddenahalli Campus for men at Muddenahalli, Chickballapur district, Karnataka

#### [Total area in acres]

1) Prasanthi Nilayam Campus for men = 20.53 acres (Academic area=5.20 acres + Playground=7.71 acres + Planetarium=2.13 acres + Stadium=5.49 acres)

- 2) Anantapur Campus for women = 82.6 acres
- 3) Brindavan Campus for men = 35.55 acres
- 4) Muddenahalli Campus for men at Muddenahalli, Chickballapur district, Karnataka (in 8.10 acres)

# **Total Constructed area:** [In sq.m.]

- 1) Prasanthi Nilayam Campus for men = 56,217.38 sq.mts.

  (Main building= 44,638 sq.mts. + Humanities building=1,744 sq.mts. + Annexe = 4,088 sq.mts. + Central Library = 5,018 sq.mts. + Planetarium = 729.381 sq.mts.)
- 2) Anantapur Campus for women = 20,018 sq.m. (3 buildings)
- 3) Brindavan Campus for men = 29,874 sq.m. (2 buildings)
- 4) Muddenahalli Campus for men = 4979.60 sq.m. in 8.10 acres University Administrative building = 4025 sq.m. in 2.25 acres
- \$\$- Hostel extension buildings were augmented in Prasanthi Nilayam and Anantapur Campuses.
- 4.2 Computerization of administration and library

University Management System (UMS) has been initiated in the year 2011-12. Admissions have been totally computerized. Examination module and other modules such as Accounting and Finance, Hostel maintenance, administration, Back-office, etc., are being developed.

# 4.3 Library services:

	Exist	ting	Nev	vly added	Total		
2014-15	No.	Value	No.	Value	No.	Value	
	NO.	(₹ in lakhs)	NO.	(₹ in lakhs)	NO.	(₹ in lakhs)	
Text Books	165389	806.95	2185	9.39	167574	816.04	
Reference Books	6386	27.89	350	1.4	6736	29.28	
e-Books							
Journals	160	2.42	7	0.121	167	2.541	
e-Journals*							
Digital Database	EBSCO- 8500 Journals SCI.FINDER- 34000 Journals (Abstract & Bibliography)	20.42					
CD & Video	3228	0	0	0	3228	0	
Others (specify)							

Note: \* E-journals- The Central Library of the institute is fully networked with INFLIBNET/INFONET with VSAT connectivity with extension of network to other departments initially by the UGC. The UGC INFONET - WAN networks all the universities in India. The SSSIHL users can access the databases of Web of Sciences, Science Direct, J-CCC, J-STORE, Oxford University Press, Cambridge University Press and PRO-QUEST through INFLIBNET.

All these Journals are available to all the students and staff over our institute campus network. These Journals cover various teaching and research disciplines actively pursued by the departments.

# 4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Depart- ments	Others
Existing Added	853 183	Labs = 14 Student computers	All the computers in the institute have internet browsing		Computer Centres =	44	440	60
Total	1036	= 492	facility		*			

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

The University has provided Laptops for all the Research Scholars, and PC for teachers. The University has established Multimedia Learning Centre and English Language Labs at Prasanthi Nilayam, Anantapur and Brindavan Campuses to cater to the needs of video-conferencing. The University is in the process of establishing Multimedia Learning Centre and English Language Lab at Muddenahalli Campus too. All the Campuses are centrally provided with the Computer Centres. The computer-student ratio is 2.5: 1 (1348:492).

E-journals- EBSCO & Scifinder: The Central Library of the University is fully networked with INFLIBNET/INFONET with broad band VSAT connectivity with extension of network to other departments initially by the UGC. The UGC INFONET - WAN networks all the universities in India. More importantly it offers a consortia subscription to the online content of many important periodicals relevant to the research community. The package includes access to a bouquet of around 10,000 journals covering all disciplines.

We have a well-established Computer Centres at the Prasanthi Nilayam Campus which are fully networked. The Central Library is also networked with INFLIBNET/INFONET with 1 Gbps NKN/NMEICT connectivity and the internet connectivity is 100Mbps.

This facility has been extended to other campuses as well by a mpls connection cloud with 2 mbps spoke connections to each offsite campus.

# 4.6 Amount spent on maintenance in lakhs:

i) ICT 5.60
ii) Campus Infrastructure and facilities 1.70
iii) Equipments 6.98
iv) Others 0.19
Total: 14.47

# Criterion - 5

# 5. Student Support and Progression

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

- In tune with the philosophy of the Revered Founder Chancellor, Bhagawan Sri Sathya Sai Baba, education is imparted TOTALLY FREE OF COST to all the students for all courses of study.
- In Sathya Sai Hostels, all students willingly undertake all the tasks to run the hostel and stay as one big family with one fourth of the teachers staying in the hostel. The students naturally pick up soft skills, get personal counselling from the teachers and get coaching and guidance on not only academic aspects but also aspects regarding life. All this facilitate a great amount of multi-skill-development. They also get coaching for games, music etc. in this unique self-reliance model.
- Rich pool of faculty visiting the university helps the students in deciding their career path and guidance for competitive examinations.
- The senior and junior students live as one family, which facilitates cooperation and not competition among the students. The concept of ragging is unheard of in Sathya Sai Hostels.
- Grievance redressal mechanism exists. A student can approach his/her room teacher with his/her grievance. If the student is not satisfied, the student can approach the floor teacher, warden. If still not satisfied the matter can be escalated to the Vice-Chancellor.
- The preceptorial system that ensures that each student has a teacher who is a mentor and helps the student develop a holistic personality. Mentors also review the progress of their mentees and make a collective and comprehensive review during the mentors' meetings.
- One of the significant teaching-innovations is "E-Guru" software package developed by a faculty and his project student, which enables the teachers to upload all the teaching material, quizzes, syllabus, session-wise schedule of each course, old question papers, standard formats for submission to examinations section, etc. This enhances the effectiveness of teaching-learning to a great extent.

# 5.2 Efforts made by the institution for tracking the progression

- Students appear for the different competitive examinations and the results obtained are communicated to the university.
- Information of job placement is provided in a structured manner with the support of alumni initiative known as CATALYST which facilitates placement of the passing out students.
- During their course of study, students are evaluated from time to time and wherever necessary, remedial classes, tutorial classes are conducted. Students are being encouraged to take up projects and dissertations in their final year of study so that it can help them to focus on a problem at hand and pursue research beneficial for the society.

UG	PG	Ph.D.
859	420	69

(b) No. of students outside the state (out of 1348)

887

2

(c) No. of international students

Men No %

Women

No	%
2	0.15%

Last Year (2013-14)					This Year (2014-15)						
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
346	17	29	84	-	466	351	15	16	141	-	523

Demand ratio: 1 of 5 admitted

Dropout %: 0.05% of admitted

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

Students of post graduate programmes are given special coaching for taking different competitive examinations like UGC NET, JRF, GATE etc. Faculty members focus on the format and type of questions generally asked in these competitive examinations and are actively involved with the students in solving model question papers. The students are evaluated and mentored one on one on a weekly basis. The teachers keep in mind the special skill sets required to be successful in these examinations and impart the same to the students as part of the teaching-learning process.

No. of students beneficiaries

Interested PG students of the relevant departments are given informal coaching for competitive examinations. (25 out of 45)

5.5 No. of students qualified in these examinations

NET	1	SET/SLET	-	GATE	14	CAT	-	
IAS/IPS etc	-	State PSC	-	UPSC	-	Others *	6	
						* J]	RF, JE	ST

#### 5.6 Details of student counselling and career guidance

Students are given inputs about the different avenues available in their respective course of study from time to time throughout their period of study at the institute. Interaction with rich pool of visiting and guest faculty also broadens their perspective and gives them clarity about the career path to be chosen by them. Students are encouraged to take up projects in the 3<sup>rd</sup> year under-graduation in their areas of interest which can lead to the student pursuing research or career in that field.

No. of students benefitted 1348

# 5.7 Details of campus placement \*

	Off Campus		
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
21	89	65	24 **

<sup>\*</sup> Students of Undergraduate courses and the remaining Post Graduate courses are pursuing higher studies at SSSIHL and elsewhere (IISc, IITs, TIFR etc.,)

Our Placement Officer has close interaction with Business and Industry and, therefore, many organizations are aware of the institute's Philosophy, functioning, academic excellence and student's attitudes. They also know of the uniqueness of the Integral Education system of the institute, with its special emphasis on moulding the students into a wholesome and balanced personality, academically Sound and Spiritually Aware. Many organizations, who have employed our students and observed their competence and sense of commitment to basic values, seek out our graduates repeatedly. Most of these graduates are occupying good and rewarding positions in India and abroad and many of them have progressed to very senior levels.

The alumni of the institute play an important role in helping graduating students find suitable employment opportunities in their chosen vocation.

They achieve this through an outreach programme called CATALYST (Corporate Aptitude Training – an Arena to Leverage Your Skills and Talents) where graduating students are coached in preparing résumés, the application process, interview techniques, networking and the like. The programme has been very successful.

5.8 Details of gender sensitization programmes- In awareness courses the inputs relating to gender sensitivity are provided to both men and women students. Students are exposed to the discourses of the Revered Founder Chancellor, Bhagawan Sri Sathya Sai Baba, who had many times spoken at length about the exalted status given to women and respect for women in Indian Culture. This makes a very deep impression on the young minds of the students.

<sup>\*\*</sup> The off-campus placements are also done by alumni referrals.

5.9 Stud	ents Activities			
5.9.1	No. of students participated in Spe	orts, Games and other e	events	
	State/ University level* 1348	National level	International leve	1
	No. of students participated in cul	tural events:		
	State/ University level* 1348	National level	International level	
	*All students participate in the	institute Annual Spor	ts and Cultural Mee	e <b>t.</b>
	Note: Participation in sports, cultural campuses and is an integral part of the Annual Sports and Cultural Meet who and sports competitions and by the housands visitors in the Sai Kulwant students in sports, cultural and other The events on display include bike studently, aerobics to name a few.  The infrastructural and other facility students and faculty at the SSSIHL astadium, tennis courts, a well-maintal excellent gymnasium along with well	ne learning process. The ich climaxes on 11th to igh quality of dramas at h Hall. It may be reited activities is rather rare tunts, gymnastics, ropedies needed for sports are exceptionally good ined hill view open states.	is is remarkably dem 15 <sup>th</sup> January every y nd musical programmated that this kind of even in the best of stunts, jeep stunts, a and cultural activity. These include a wordium including a cr	constrated by the rear with athletic mes presented to f participation of our universities. Hero sports, mass ties available to orld class indoor
5.9.2	No. of medals /awards won by studen	nts in Sports, Games an	d other events	
Sport	ss: State/ University level 82	National level	International le	evel
Cultu	aral: State/ University level 69	National level	International l	evel
5.10 Sc	holarships and Financial Support	Number of students	Amount	
Financia	al support from institution	1348*	₹ 18.13 crores	
Financia	al support from government	0	0	
Financi	al support from other sources	4	₹ 6.99 lakhs	

received

students

International/ National recognitions

who

<sup>\*</sup> Education is provided totally free of cost to all the students of the institute in tune with the philosophy of Revered Founder Chancellor.

5.11 Student organised / initiatives							
Fairs : State/ University level Nation	al level International level						
Exhibition: State/ University level* 2 Nation	al level International level						
* Annual Sports and Cultural Meet, Science Day Celebrations,							
5.12 No. of social initiatives undertaken by the st	udents						
o GRAMA SEVA / VILLAGE SERVICE							

Manava Seva is Madhava Seva (Service to man is service to God). Bhagawan Sri Sathya Sai Baba, Revered Founder Chancellor

For 1200+ young institute students (and their teachers), nine days of their academic year is spent in the service of village folks from over 150 villages in one of the most poverty-stricken districts in India. This includes distribution of food packets, clothes and other items, along with devotional singing, in a manner that carries a message of hope.

The entire project - the planning, resourcing, organizing and implementation - is largely managed by the institute students and teachers from start to finish. Women students spend most of the night packing tens of thousands of food packets. The Men students spend the better part of each day going to individual homes in each village to personally serve this prasadam to the villagers for ten continuous days.

No. of People Served	3,00,000	Food packets distributed	~300000
Villages Covered	153	Dhotis distributed	~ 45000
Students involved	1348	Sarees distributed	~ 47000
Teachers involved	161		
Sevadals (volunteers)	450		
Vehicles & drivers	52		

#### Other Extension Activities:

- Adoption of a lepers colony of 25 families near the town of Anantapur for the last 25 years where
  the students render service once in a month taking care of various dimensions of health and
  hygiene, education, social issues, self-sufficiency etc.
- O Students under the able guidance of the teachers, participate regularly in 'Village Integrated Programmes' and take up service activities namely providing smokeless *chulhas*, solar bottle bulbs, painting the school and houses, enacting street plays on social and health issues, sanitation etc.
- Students and staff of the institute are regular donors of blood to the blood banks of the two Super Speciality Hospitals in Prasanthi Nilayam and Bangalore.
- Students of all the campuses periodically take up tree plantation initiatives in and around their campus areas.

The following activities are being undertaken by the alumni under the aegis of Sri Sathya Sai Institute of Higher Learning-

- Regular medical camps are conducted all over the globe where treatment and medicines are given totally free of cost. Narayan Seva- mass feeding is also a part of these camps.
- Establishing and running of 2 children's homes and 3 schools in different parts of the country imparting value education free of cost to underprivileged children.
- An ongoing tree plantation initiative in the three mandals in and around Puttaparthi for the last 7
  years in which a total of 32,000 plants have been planted till date out of which 5000 are coconut
  plants.
- O Distribution of blankets and warm clothing to the less fortunate in major cities all over the country every year, at the onset of winter.

5.13 Major grievances of students (if any) redressed: No issues raised.

#### Criterion – 6

# 6. Governance, Leadership and Management

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

#### THE VISION

To assist generations of students acquire Self-knowledge (*Atma Vidya*) and Self-confidence (*Atma Vishwas*), so as to cultivate Self-sacrifice and earn Self-realisation; thereby moulding them into leaders who will benefit society.

#### THE MISSION

To mould well-rounded holistic individuals – professionally sound, socially responsible and spiritually aware – who embody noble values and a right attitude, through Educare (*Integral Education based on Human Values*) that caters to the physical, intellectual, emotional, psychological and spiritual dimensions of the human personality.

#### THE UNDERLYING PHILOSOPHY

The Sai educational institutions have been established not merely to enable students to earn a living but to make them acquire good traits, lead ideal lives, and give them ethical, moral and spiritual strength. I have established them with a view to inculcate love and teach good qualities to students. They will learn here humility, discipline and faith.

I have established these institutions to impart spiritual education as a main component and worldly education as a secondary one. Education should enable one to cultivate good qualities, character and devotion. The teaching of the university curricula is only the means employed for the end, namely, spiritual uplift, self-discovery and social service through love and detachment.

This will be a Gurukula - a place where teachers and taught will grow together in love and wisdom - and like the ancient system of education, it will develop in its students a broad outlook and promote virtues and morals, which serve to foster noble ideals in society.

This Institute will be a temple of learning where youth are shaped into self-reliant, contented and enterprising heroes of action and self-sacrifice, for the purpose of serving humanity.

Sri Sathya Sai Baba Revered Founder Chancellor

#### THE CORE PURPOSE OF THE UNIVERSITY IS:

- To impart true, ideal education, and mould students as ideal citizens wedded to the service of society.
- O To provide the youth with an education which, while cultivating their intelligence, will also purify their impulses and emotions and equip them with the physical and mental disciplines needed for drawing upon the springs of calmness and joy that lie in their own hearts.
- To help students to cultivate self-knowledge and self-confidence, so that each one can learn self-sacrifice and earn self-realisation.
- o To blossom students as true representatives of Bharatiya Samskriti, spreading tolerance, charity and brotherhood throughout the World.
- o To equip students for the role of future leaders of India, as persons of integrity and character, as embodiments of truth, justice (righteousness), peace and love; and to confer on them the courage to stand up against injustice, indiscipline, immorality and falsehood.

Elaborating the purpose and philosophy of the University, the Revered Founder Chancellor says, "This Institute has not been established just to prepare you for earning degrees...Teaching you the University curricula, preparing you for the university examinations, and awarding you university degrees — these are only means employed for the end, namely — spiritual uplift, Self-discovery and social service through love and detachment. Our objective is to provide the youth with an education, which while cultivating their intelligence will also purify their impulses and emotions, and equip them with the physical and mental disciplines needed for drawing upon the springs of calmness and joy that lie within their own hearts. Our hope is that by their lives, they will be shining examples of spiritual awareness and its beneficial consequences to the individual and society."

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

Yes. The University is in the process of implementing a computer based University-wide Management System (UMS) that include modules for managing the Examination Section, Admissions, University Administration, Hostel etc.

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

# 6.3.1 Curriculum Development

To supplement the conventional classroom chalk-talk method, the following avenues are created by the University for Effective learning of the subject by the students.

- a) Class projects for students to extend and reinforce understanding of the concepts taught in the class.
- b) Dissertation/Project Work is compulsory for all the postgraduate/ professional courses in their final year curriculum. This trains the students to develop the capacity to analyze large amounts of data and draw conclusions. It also cultivates the ability to clearly define a research problem and choose an appropriate research methodology to address the research problem.
- c) Industrial tours/corporate visits are organized in all the professional programmes to complement classroom teaching. These are usually organized at the end of the first year during the summer holidays. The objective of the industry visit is to enable the student to see the relevance of the concepts studied and expose them different/emerging technologies. visits also give them These opportunities to interact with technical experts and carry out their final year projects in the areas of current interest to the Industry. It also builds a bridge between academia and industry.
- d) Each department organizes at least one or two seminars/workshops per year and International Seminar/Workshops periodically in focused Thrust areas of Research. These facilitate the exposure of students to the current research/market trends and equip the students to face the real challenges in the World after they complete Undergraduate and Postgraduate studies.
- e) Internal workshops, special guest lectures are also organized by various departments periodically to make students appreciate industry's perspective to learning.
- f) The final year professional programmes students are allowed to attend and present high quality research papers in national and international conferences organized by other institutions. (Number of M.Tech. students have attended and presented papers and demonstrations in IEEE and Hi-PC Conferences.)
- g) Students are also encouraged to write articles and publish papers based on the Research Work they undertake as part of their course curriculum or otherwise.

# 6.3.2 Teaching and Learning

- As a part of the institute's initiative to improve and maintain teaching quality, the SSSIHL has introduced a formal and structured Online Student Feedback mechanism and the analysis is communicated to individual teachers for their self-introspection and development. This is also referred to as one parameter in Career Advancement of the faculty members.
- Participative learning by students through departmental colloquium sessions
- Problem solving sessions and surprise tests are conducted regularly to induce constant touch of the students with the course materials.
- Tutorial Classes are given for every subject to enhance problem solving skills.
- Technology assisted Learning Access to e-content: repository of video lectures, animated videos on concepts, e-books, white papers, old question papers, etc. which students are permitted to access in their free time.

## 6.3.3 Examination and Evaluation

The whole admissions test process is conducted through University Management System (UMS) package. UMS is a well-protected and composite software package initiated by the institute.

Examination has Continuous Internal Evaluation (CIE) and End semester examination as its components. The CIE comprises assignments, seminars, quiz tests and students participation in class in addition to periodic tests. Some departments using the e-guru platform, administer online test to the students. The evaluation tests are conducted with clockwork precision and the final semester results are declared within a couple of months.

Examination Committee monitors and advices administration regarding performance of students and identify weakness if any. The exams pass-rate for the year 2014-15 for Undergraduate Programmes and Postgraduate Programmes are 93% and 95% respectively. The examination and evaluations for Ph.D. Programmes are based on minimum standards specified in the UGC's standards for PhD Programmes.

# 6.3.4 Research and Development

Research Advisory Board and departmental Research Committee gives valuable input to the research faculty and students.

- Teachers are also encouraged by the Institute to attend the International
   / National Conference, Seminars, Workshops and training Programmes
   organized by various Universities/Institutions for enhancing their
   knowledge in Research and Teaching.
- O A weekly interdepartmental Science Colloquium provides an opportunity for doctoral research scholars and the teaching faculty to share their research experiences with fellow researchers. It breaks down barriers of communication and helps merge traditionally distinct scientific disciplines, thereby creating new opportunities for research.
- Visiting Scientists, Educationists and Executives from Industry visit the University regularly and interact with faculty members and research scholars thereby, making them aware of recent developments in their respective subject areas.

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

- All the faculty have access to computers and are encouraged to explore various knowledge data bases. The University has 1Gbps Internet connectivity under the aegis of the National Knowledge Network (NKN), for academic and research pursuits of staff and students. All the campuses of the University are interconnected via 2Mbps leased lines. The University is part of INFONET, E-Journal Consortium. We therefore get access through INFLIBNET to nearly 10,000 online Journals in various disciplines, from fifteen International Publishers. All these Journals are available to all the students and staff over our University campus network. These Journals cover various teaching and research disciplines pursued by the department.
- Students have access to online course material in the browsing centers of the institute where they can pick up skills from the tutorials of renowned faculty and information about the latest trends in their fields of study.
- The Library every year procures latest books pertaining to the different fields of study based on the recommendation of the respective HoDs. This includes latest editions.
- Teaching aids do facilitate effective teaching as well as learning, and all the
  required facilities like LCD projectors, OHPs, Magnetic White Boards, Smart
  Class rooms etc are available. They enhance the quality of teaching and aid the
  students to grasp the lessons and concepts thoroughly. Multimedia learning
  centres and language labs are also available for the students to pick up the
  necessary skills.
- Library in the hard and electronic form is used extensively by teachers as well
  as students. Library books Purchase Committee decides the quality and need
  for purchasing books and journals. The central administration decides based on
  the recommendations of the Committee with Vice-Chancellor as the ChairPerson.
- The Annexe building which is already operational in the year 2015 houses smart classrooms, lecture theatres, well equipped labs in addition to seminar hall and conference rooms. This helps in enhancing the quality of academic learning of the students. State-of-the-art Central Research Instruments Facility (CRIF) is getting ready for operations which will go a long way in improving the quality of research in the institute.
- The finance section of the university works on Tally for accounting and TDSMan for online TDS filing.

- The dictums of Bhagavan Sri Sathya Sai Baba of 'Work is Worship' and Duty is God' motivates all the staff and students of the institute to give their best to every task at hand.
- The university has a diverse management culture. Bhagawan says that "There is only one Caste The Caste of Humanity. People of all regions, religions, languages, etc mingle with one another as one extended family akin to different limbs and organs of the human body and function in a synergetic way one coexisting with another with genuine concern, empathy and dynamic balance.
- Annual faculty workshop for the entire teaching faculty before the start of the academic year for reviewing the goals set and setting objectives and action plan for achieving effective teaching.
- Career advancement of the teaching and non-teaching faculty is taken up regularly without fail and increments are also given whenever they are due.
- Faculty are encouraged to apply for research projects and find solutions to some problems identified by the different research and funding agencies
- Students and faculty members interact with the industrial experts and academia and get valuable inputs about the latest trends in their respective fields.
- All the staff and students of SSSIHL have world class health facilities at their disposal totally free of cost due to the presence of two general hospitals and two super specialty hospitals run by the parent organization.
- Children of the staff get free education in the schools run by the parent trust, SSSCT.
- The institute has excellent sports facilities and gymnasiums in all the campuses and all items of day to day needs are provided at a nominal costs to the staff and students.
- The elevating spiritual talks, congregational singing and celebration of different global festivals provide food for the soul to the staff and students and broaden their perspective.

# 6.3.7 Faculty and Staff recruitment

Through Selection Committee as prescribed by the UGC under the regulations of Deemed to be Universities, 2010.

An employment notice is published in the website of the University inviting applications for faculty positions. The employment notice specifies and eligibility criteria for faculty position. On receipt of applications, the same will be sent to the Head of the concerned Department for scrutiny. Eligible candidates are called for giving a demonstration lecture to teachers and students. Based on the demonstration lecture, eligible candidates are shortlisted and called for an interview by a duly constituted Selection Committee consisting of the Vice-Chancellor as Chairperson, two external subject experts, Dean of the Faculty, and Head of concerned Department.

Based on the qualifications, experience and performance in the interview and if found suitable, the Selection Committee recommends the candidate for appointment as Assistant Professor/Associate Professor, as the case may be.

# 6.3.8 Industry Interaction / Collaboration

The research output at the university has seen a significant rise in the past few years. The number of doctoral research scholars has seen a 35% increase in three years from fifty-one in 2011 to sixty nine in 2014. Research Scholars represent almost 8% of the current student population at SSSIHL, a figure far above the national average. New research collaborations in the Sciences between the university and external institutions like the FDA (USA), as well as collaborations on multiple research projects with the Sri Sathya Sai Institute of Higher Medical Sciences (SSSIHMS) are testimonial to the rise in the quality of research at the university.

The university has taken many steps in the past few years in bringing the various disciplines at the university and SSSIHMS together to discuss issues from various perspectives and identify projects that will benefit society. This has led to interdisciplinary collaborations of SSSIHL with SSSIHMS and external agencies in areas such as the rapid detection of endemic diseases, diabetic retinopathy, development of a cost effective multi-modal microscope, regenerative medicine and tissue engineering, etc.

# Colloboration with external agencies:

The Dept. of Mathematics & Computer Science has research collaborations with the following organizations:

- ° ARM
- Zentron Labs
- NVIDIA (We are recognized by NVIDIA as CUDA Teaching and Research Centre)
- ° IBM
- ° DRDO: ADE
- ° ISRO: ADRIN

### o FDA Colloboration

The Dept. of Biosciences and Physics have an active collaboration with the Food and Drug Administration (FDA), Bethesda, MD, USA in the area of rapid detection of endemic diseases using Flourescent Nanomaterials. Dr. B E Pradeep, Dept. of Biosciences, SSSIHL and Prof. K Venkataramaniah, Dept. of Physics, SSSIHL are collaborating with Dr. Indira Hewlett and Dr. Mohan H, Center for Biologics Evaluation and Research (CBER), FDA in this frontier area of medical diagnostics. Additionally, Sri L A Avinash Chunduri, Doctoral Research Scholar, Dept. of Physics, SSSIHL went for a training program to FDA for a period of three months.

### o Lab Engineers Collaboration

The Dept. of Physics has an active collaboration with a Bangalore-based Microscope Manufacturing Company, Lab Engineers (India), in the area of development of a cost effective Multimodal Microscope.

Prof. R Prabhakara Rao had an academic interaction with Prof. B C Sutradhar, Adjunct Research Professor of Carleton University, Canada and Prof. Vandana Jowheer, University of Mauritius and the following publications are the outcome of this joint research during the year.

B C Sutradhar Vandna Jowaheer, and R.Prabhakara Rao (2014) "Remarks on Asymptotic Efficient Estimation for Regression Effects in Stationary and Non-stationary Models for Panel Count Data" BRAZILIAN JOURNAL OF PROBABILITY AND STATISTICS Vol.28.2, 241-254.

620	Admission	of Ctudonto
0.3.9	Admission	of Students

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6.4 **Welfare schemes**- Education is imparted completely FREE OF COST in this institute and for those students who are under privileged, the mess charges are also waived. Two super specialty hospitals and two general hospitals one each in Prasanthi Nilayam and Bengaluru cater to the health needs of the students, teachers and non-teaching staff of the institute. There are fair price shops run by the parent trust where all the essential day to day items are available for a nominal price.

6.5 Total corpus fund generated	₹ 4.40 crores			
6.6 Whether annual financial aud	it has been done	<b>√</b>	Yes	No

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

Audit Type	External		Audit Type External		Inter	rnal
	Yes/No	Agency	Yes/No	Authority		
Academic	No		Yes**	VC		
Administrative	No		Yes**	VC		

<sup>\*\*</sup> Research Advisory Board, Internal Quality Assurance Committee and Internal Audit

For UG Programmes Yes No No No V*  * Double evaluation of scripts takes more than 30 days.
6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?
The whole process of paper setting, scrutiny and proofreading of the examination papers has become online. Two initiatives have made it possible. Examination Document Dispatch and Receipt System (EDDRS) and Question Paper Scrutiny Board (QPSB). Continuous Internal Evaluation system is there from inception for effective learning by the students.
6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?
Not applicable
6.11 Activities and support from the Alumni Association

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

They achieve this through an outreach programme called CATALYST (Corporate Aptitude Training – an Arena to Leverage Your Skills and Talents) where graduating students are coached in soft skills and in preparing résumés, the application process, interview techniques, networking and the like. The programme has been very successful.

find suitable employment opportunities in their chosen vocation. They also help in

academic inputs and industrial exposure.

The alumni of the institute play an important role in helping graduating students

Alumni contribute to the development of the institution in many ways. They provide valuable feedback regarding various courses and help in updating them. They help the alma mater in the conduct of annual workshops, seminars, and conferences. They are a part of the placement structure for the outgoing batch of students each year. They assist the departments by providing the list of latest references followed in similar programmes of overseas universities.

Alumni also help in formulation of courses and syllabus as members of the Board of Studies, help the research scholars with their research. Also help the students appreciate the unique value based education model of the institute.

# 6.12 Activities and support from the Parent – Teacher Association

The support of the parents is sought in the following manner:

Parents of all the new students have a meeting with the warden, director and faculty at the time of joining the institute.

Feedback is taken from the parent at the end of each semester. Hostel warden sends a progress report at the end of each semester and parent's feedback and comments are received. Parents are required to meet the director/warden/resident teachers one in an academic year to appraise them of the progress of their ward in five dimensions of education practiced at SSSIHL namely intellectual, physical and cultural, devotional and service.

# 6.13 Development programmes for support staff

Career Advancement Scheme regularly promotes the non-teaching staff and they are provided with the timely increments. Courses are conducted to increase their computer literacy and their skill sets are increased by job rotation.

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

All the Campuses have facilities like use of biogas, vermicomposting, use of eco-friendly briquettes for cooking, solar heaters for hot water, water harvesting facility, proper waste disposal. The university also promotes students to take up tree plantation programmes on a regular basis.

# Criterion – 7

# 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.

The EDDRS (Electronic Document Dispatch & Receipt System): For the sake of hastening the process of completion of dispatch of QP Setting orders to the Internal/External Examiners and also receipt of the same using e-mail the EDDRS was introduced. In this process, the postal transit of Parcel/Post to the Examiners to & fro, for about 8 – 10 days of time, has been abridged to one day only. The appointment letter along with all its enclosures (such as paper syllabus, question paper pattern, previous years question paper as the model, remuneration claim form, etc.) are dispatched as soft copies by confidential email to the official mail id (or mail id as furnished) of the examiners. There will be no dispatch by post, unless a special request is made to this effect by any particular examiner.

The ESE question paper / synopsis, set by the examiners (either by external examiners or by our Institute teachers) are sent by confidential email, which is the official mail id of the Examination Section of SSSIHL, designated for this purpose. In this connection, a separate official mail id was created for the purpose of use in the EDDRS. EDDRS in combination with Question Paper Scrutiny Board (QPSB) which has been in place from the academic year 2011-12 has streamlined the whole process.

### **BENEFITS**

1. Use of the EDDRS for dispatch of examiner appointment letters and subsequent receipt of question papers / synopses from examiners cuts down the process cycle time (time from request to examiner for question paper setting to receipt of question paper from examiner).

The reduction in process cycle time becomes more significant in the case of external examiners who are located far away from Puttaparthi (headquarters of SSSIHL) in Andhra Pradesh. Currently the invitation letters to the examiners to set question papers / synopses and the valuation request letters to examiners for valuation of answer scripts are also dispatched by the Examination section of SSSIHL by email. Therefore, the new IT enabled initiative of EDDRS for ESE question papers / synopses is an extension to the already existing IT enabled process.

- 2. In general, most examiners find the process of dispatching question papers / synopses by email to be far simpler and examiner friendly than dispatching by registered post; as all examiners have ready access to their personal or official computer systems with internet connectivity.
- 3. The new IT enabled process is found to be fulfilling all requirements of confidentiality as expected of any such process involving institute Examination and hence there is no compromise at all in this regard. The Institute saves considerable amount of money that would be otherwise spent on postal charges in dispatch of question papers / synopses by examiners by registered post. Any amount saved, though big or small, would mean a lot for an Institution such as ours that offers free education to all students.
- 4. In the following academic year the creation of the Alumni cell in SSSIHL is also being contemplated. This cell will serve as a liason for all the activities between the Alumni and the institute. The cell will facilitate alumni participation in the formulation of courses, revision of syllabus, assist research scholars with their research.

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

As explained under the point 2.15 w.r.t 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 have been explained in detail. The initiatives that the institute needs to take in order to improve and sustain quality in teaching and research were discussed in the meeting of IQAC. The points that emerged from this discussion and action taken are listed below.

- Promoting Excellence in Research and Teaching:
- Collaborative Research with National and International Agencies to give a fillip to research quality
- Faculty Training in-House and in Other External Agencies:
- Well-Structured UG-PG-MTech-PhD Programs and augmenting with new programs:
- Promoting Public Awareness of SSSIHL's Contribution and its involvement in imparting Quality education
- Leadership Team

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

1) Academic:

Sri Sathya Sai System of Integral Education is being imparted totally free of cost with stress on experiential learning

(Please refer to **Annexure-V** for details)

2) Administrative:

Online Teaching Quality Feedback from the Students (Please refer to **Annexure-VI** for details)

# **Best Practices at SSSIHL since Inception 1981:**

- Socially relevant projects are encouraged
- Exposure to top academia and industrialists
- Committed and dedicated teaching fraternity
- Totally free education of high quality
- Values-based Integral education
- Vibrant academic environment
- Holistic ambience catering to body, mind and spirit
- Rich student diversity
- Preceptorial System
- Awareness Programme
- Self-reliance programmes
- Extension programmes Grama Seva
- Annual Sports and Cultural Meet 100% participation
- Punctuality in all schedules
- No student unrest at any point of time.
- No concept of Ragging at all in the hostels

# The Institute works with clockwork precision:

- o Academic Year commences on the 1st of June every year.
- o Academic Year concludes on the 15<sup>th</sup> April every year.
- Admission Entrance Examinations for all Programmes is held from April 17-30 every year.
- o Convocation ceremony of the institute is held on the 22nd of November every year.
- o April 15<sup>th</sup> to May31<sup>st</sup> Summer Vacations every year.
- o 15 days Winter Vacation in October-November every year.
- Examination results always declared in time within a month of the examinations for Undergraduate Programmes.

## 7.4 Contribution to environmental awareness / protection

A two credit Environmental Awareness is offered in the first and second semester of all the Undergraduate students. The department of Biosciences offers elective courses in Environment.

7.5 Whether environmental audit was conducted?



\* Environmental audit is done at all the Campuses and Hostels in an informal way. It is pertinent to share the following processes carried out in the campuses which show concern for the environment:

**Energy conservation:** All the Campuses and Hostels promote usage of CFL bulbs for energy consumption. The institute is also in the process of adopting LED bulbs in a phased manner in the entire institute. Combustible non-toxic waste like coconut shells, paper, carton boxes that is produced in the hostel is used as fuel for the boiler in the kitchen.

**Use of renewable energy:** Solar heating panels are used in all the four hostels as a renewable energy for the requirement of hot water for the students and in the kitchen. Solar panel street lights are also used. Kitchen is a zero LPG zone running on briquettes which is made by saw dust, groundnut shells, rice husk. There is a proposal to introduce solar power in a phased manner in the institute in the coming academic years

**Water harvesting:** Some of the hostels have created a provision for water harvesting. The rain water from the hostel building flows into a specially made soak pits on either side of the hostel through pipes and a cement channel. This helps in recharging the ground water for meeting the hostel water requirements.

**Plantation:** Tree plantation is taken up on a regular basis by the students under the guidance of the hostel teachers. The students participate in planting trees like neem, coconut and *kanuga* (local fast growing variety) in and around the campuses under self-reliance activities. In 2014-15, the students took up the initiative of cleaning and increasing the green cover on the banks of river Chitravati flowing through Prasanthi Nilayam. Many flowering plants like gulmohar, *punnaga* (Indian laurel), and bougainvillea were planted along the banks.

\* Efforts for Carbon neutrality: Biomass gas and gobar gas is used in place of fossil fuels and fire wood thus preventing pollution of the atmosphere. The institute campuses have lot of greenery which reduces the CO<sub>2</sub> content though the institute is located in dry region of Rayalaseema, Andhra Pradesh.

**Hazardous waste management:** A Radiation Safety Officer (RSO), certified and authorised by AERB has been nominated to take care of procurement and storage of radioactive material and disposal of radioactive waste as per AERB guidelines. RSO has been submitting the Annual reports of Radioactive material usage and radioactive waste disposal in adherence to AERB regulations.

The radioactive material procured by SSSIHL from BRIT: Board of Radiation and Isotope Technology (a unit of BARC) is for research purpose only and is of very minimal strength / activity (few micro- milli Ci). After using the material for research purposes, depending on the half-life of the isotope and permissions from AERB, this radioactive waste is categorized and disposed as per the AERB norms.

\* e-waste management: Institute adopts buy back policy and obsolescence removal policy and through which e-waste management is controlled.

**Drip irrigation facility** is available in the Brindavan Campus of the institute.

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

# **Strength (Salient Features)-**

- ➤ Unique blend of Spiritual and Secular Education- Following the dictum of Revered Founder Chancellor, 'Education is for life and not merely for a living', this institute helps a student in acquisition of both secular and spiritual knowledge. This enables a student to connect to his/her Divine inner self resulting in a calm, focused and intuitive mind.
- Modern Infrastructure- This Institute provides modern infrastructure to the students like digital classrooms, high speed broadband connectivity, well-equipped libraries & research laboratories and excellent sports facilities. It houses an indoor stadium, an outdoor stadium, a planetarium, accommodation for teaching and non-teaching staff and has two super-specialties and two general hospitals for health related issues (free of cost). The student-computer ratio of the institute is 2.5:1 which is very high compared to the national average.

### > Academic Excellence-

- More than 70% of the teachers have Ph.D. qualification and another 15% are pursuing doctoral research. There is a 33% increase in teaching faculty strength and 57% increase in doctoral research scholars in the last four years. Research Scholars represent 6% of the total student population at SSSIHL, a figure far above the national average. Experts from academia and industry visit the institute from time to time and share their rich experience with students in forums like departmental colloquium, guest lectures, workshops and conferences held in the institute.
- The university has adopted the semester system right from its inception (over 34 years) and a credit based grading system on a 10 point scale comprising continuous internal evaluation (CIE) and End Semester Examination (ESE) for the students. This helps the students to progressively improve their performance and have a sound conceptual knowledge. The pass percentage of students since the inception of the institute is well above 90% in undergraduate programmes and 96% in postgraduate and professional programmes. On an average, 40 % of the students secure distinction in the semester examination and one out of every four final year postgraduate students qualify in national exams such as GATE/JEST, CSIR-UGC-NET. The pass percentage in competitive examinations is far above national average.
- ➤ Compulsory Residential Character- The students live in the hostel following the ideal of 'each lives for the other and all live for God'. This equips them with the soft skills and life skills in a practical way. The hostel runs as a self-sufficient unit where the students take care of all activities of the hostel. This makes them appreciate the dignity of labour and spirit of work. They also acquire the traits of adaptability, empathy and team work. Nearly one third of the teaching faculty stay with the students in the hostel and are readily available round the clock for students to freely discuss both academic issues and personal matters with them.
- ➤ Socially Relevant Research- According to our Revered Founder Chancellor, knowledge that is not translated into skills that benefit society is useless. Thus, research topics across all departments are chosen with great diligence, leading to translation research or directed basic research like sensors for Disease Biology, Tropical Microgreens A viable answer to malnutrition in rural India, Next-Gen Plasmonics Technology for point-of-care diagnostics, deflouridation, Spirit at Work, Values in Management etc. A state of the art Central Research Instruments Facility, will give further impetus to the interdisciplinary research leading to societal benefit.
- ➤ Free Education- The Institute offers education TOTALLY FREE OF COST for all courses of study.
- > Service Dimension- The students are encouraged to experience the deep inner satisfaction of giving joy to others through selfless service. The students under the able guidance of the teachers run the hostel as a self-sufficient unit. They take care of departments like Housekeeping, Health Care,

Publications, Culinary tasks, Entertainment, Provision Stores without any external support. These self-reliance activities enable students to become self-confident and independent, and also contribute to leadership and entrepreneurial development. The students and teachers of the institute participate in Grama Seva, a sacred activity of serving nearly 3,00,000 poor and needy of the nearly 150 villages around Puttaparthi. This is being modified from this year onwards to make it an ongoing activity rather than a one off event with an objective to give a better hands on experience to the students. Activities being contemplated are- Skill development of youth, Vocational training, inculcating cleanliness culture, tree plantation.

- ➤ Cultural Dimension- SSSIHL on an average has student representation from almost all the states of India making it rich in diversity. This helps in a healthy exchange of ideas, beliefs and facilitates mutual appreciation of cultural nuances, instilling in them the virtue of 'Unity in Diversity.' All students are also exposed to life lessons in forums like Summer Course in Indian and Spirituality, Awareness Courses, Moral Classes, Dramatics, Public speaking etc.
- **Physical Dimension** The students are trained to overcome their physical limitations and strive for excellence. Daily yoga classes are conducted for the students at the hostel. Students have to participate in compulsory morning exercises and games every day. All students enthusiastically participate in different sports and cultural events in the 'Annual Sports and Cultural Meet'.
- ➤ Gender Sensitivity- Gender related problems never occur in this university as the campuses for men and women are different with dedicated men and women staff respectively. Revered Found Chancellor, Bhagawan Sri Sathya Sai Baba has said, "Women should never be slighted or treated with disrespect. Wherever women are honoured, there is prosperity and happiness.' Students are taught this ideal of respect for women during their course of study.
- ➤ Clockwork Precision- The academic year commences on 1st June and ends on April 15th the subsequent year. The results of every semester are declared within two and half months of the end of the semester.
- **Spirit of Camaraderie-** The students live in the hostels in a spirit of camaraderie. One alumnus recollects, "When I entered the hostel for the first time, the seniors came forward and helped me to feel at home. I was surprised that the word ragging is unheard of in Sri Sathya Sai Hostels."

### Weaknesses-

• Though the system at SSSIHL doesn't have any obvious weakness, the newly admitted students in our unique system of Integral Education may have some difficulties to adjust to the system in the initial stages. Nevertheless, the same students after a couple of months of experiencing the system seem to enjoy the system at SSSIHL and continue to practice the same in future life.

### **Opportunities-**

- Conducive atmosphere for students to achieve academic excellence.
- Lot of opportunities for students to develop and chisel their academic skills and talents.
- Students can go beyond the mundane to enquire and explore the real purpose of life and inculcate virtues of ethical and moral living.
- Due to the rural set up of the institute, there is immense potential to undertake need based research for the benefit of the society.

### Challenges-

- In this internet age with so many distractions, temptations and instant gratifications, it is the biggest challenge to make young minds of the students to be focussed and self-sufficient and inspire them to dive deep within to know the true purpose of life.
- Maintaining Sathya Sai System of Integral Education for making ideal Sai student / Ideal Citizen.
- Contemplating on multi-disciplinary programmes and advanced research with a policy on social relevance for the neighbourhood and the society.

# 8. Plans of institution for next year:

# **Road Map Ahead:**

The quality initiatives SSSIHL needs to take in order to improve and sustain quality in teaching and research were discussed. The points that emerged from this discussion are listed below.

- **Planning for new infrastructure** viz., Central Research Instruments facility at Prasanthi Nilayam Campus of the Institute.
- Continued to attract bright Students to the Institute: It was proposed that more measures be taken to increase awareness of this institution among the larger public and communicate the uniqueness of SSSIHL in offering the values-based integral education viz. blending of spiritual values coupled with excellence in academics and research with availability of excellent infrastructure, in order to attract good students to the University.
- Establishment of an Internal Quality Review Team to meet every semester for quality assurance: It was proposed to constitute an internal team in each campus of the University to study and discuss all matters pertaining to teaching and research quality and suggest improvements for consideration by the administration.
- Faculty Training in-House and by deputation to other External Institutions (National and International) (ongoing): SSSIHL's commitment towards this initiative is already seen via the progress report. A sustained effort will bear fruits in the long run.
- Well-Structured UG-PG-M.Tech-PhD Programs and augmenting with new programs (ongoing):
  - Restructuring PG courses based on the above Ongoing Process. It
    was proposed to re-look at the Undergraduate and Postgraduate
    programmes in a comprehensive manner with a view of improving the
    quality of students and encouraging them to pursue Doctoral Research.
- · Alignment of thrust areas of teaching and research with SSSIHL Vision.
- Focusing on ground-breaking socially relevant research outcomes (ongoing): This initiative is important to channelize research efforts to result in international recognition.
  - Focused Research in Socially Relevant Areas
  - Research Scholar Admissions
  - Policies of Young Faculty Involvement in Research Supervision

- Enhancing Industry collaboration in Research (ongoing): It was suggested to consider the establishment of an industry liaison cell headed by Dean R&D, who could coordinate research activities and liaise with Industry. The Vice Chancellor opined that a suitable administrative structure would be created once the proposed Advanced Research Centre begins operation.
- Consolidation of academic programmes by the department of Home Science to Food and Nutritional Sciences and by subsequently introducing B.Sc., M.Sc. Food and Nutritional Sciences instead of B.Sc.(Home Science) and M.Sc.(Home Science).
- Alignment of thrust areas of teaching and quality research with the vision of SSSIHL.
- The emphasis is going to be on research for societal benefits strengthen the ongoing scientific collaborations with like-minded organizations both at national and international levels.
- Faculty Training in-House and by deputation to other External Institutions (National and International)
- Address to the needs of villagers by running the programmes such as soft-skills, computer literacy, promoting rural entrepreneurship, facilitating incubation cell through IIIC, helping farmers to identify soil / weather compatible crops through the research efforts of faculty, conversion of waste materials into useful products.

Signature of the Coordinator, IQAC

Name: Prof. V Chandrasekaran

Signature of the Chairperson, IQAC

Name: Prof. K B R Varma

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be University) Prasanthi Nilayam

# Annexure-i

# SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING

(Deemed to be University

#### SUMMER SEMESTER Mon SUMMER SEMESTER BEGINS 13-15 Fri-Sun Summer Course in Indian Culture & Spirituality JULY Sat Guru Poornima\* Thu-Sun Supplementary End-Semester Examinations 17-20 Tue Eid al-Fitr\* 29 AUGUST Fri Independence Day\* Sun Sri Krishna Janmashtami\* 17 Fri Ganesh Chaturthi\* 29 SEPTEMBER Sep 24-Oct 3 Wed-Fri Dasara Celebrations | Grama Seva Activities OCTOBER Wed Durgashtami\* 1 Thu Mahanavami \*/ Gandhi Jayanthi\* 2 3 Fri Vijayadasami \* Sat-Tue Study leave for End-Semester Examinations 8-20 Wed-Mon End-Semester Examinations Mon SUMMER SEMESTER ENDS 20 23 Thu Deepavali\*

1.3	21 October - 4 November	WINTER VACATION

## \* Holidays

 ${\bf Note} :$  The University will remain closed on Wed, 18 February 2015, the day after Mahashivaratri.

# Academic Calendar 2014/15

		WINTER SEMESTER
NOVEMBER		
4	Tue	Muharram*
5	Wed	WINTER SEMESTER BEGINS
8-9	Sat-Sun	Akhanda Bhajan
22	Sat	SSSIHL 33 <sup>rd</sup> Annual Convocation
23	Sun	Bhagawan Baba's 89th Birthday*
DECEMBER		
25	Thu	Christmas*
JANUARY		·
1-15	Thu-Thu	Annual Sports & Cultural Meet
13	Tue	Bhogi*
14	Wed	Makarasankranti*
26	Mon	Republic Day*
FEBRUARY		
17	Tue	Mahashivaratri*
19-22	Thu-Sat	Supplementary End-Semester Examinations
MARCH		
21	Sat	Ugadi*
26-31	Thu-Tue	Study Leave for End-Semester Examinations
28	Sat	Sri Ramanavami*
APRIL		
1-15	Wed- Wed	End-Semester Examinations
3	Fri	Good Friday*
15	Wed	WINTER SEMESTER ENDS
24	Fri	Sri Sathya Sai Aradhana Mahotsavam

16 April - 31 May	SUMMER VACATION
17-30 April	SSSIHL Admissions Tests
28-29 May	Annual Workshop for Teachers
Mon, 1 June 2015	Academic Year 2015/16 commences

Sri Sathya Sai Institute of Higher Learning | Academic Calendar 2014/15



# **SRI SATHYA SAI** INSTITUTE OF HIGHER **LEARNING**

(Deemed to be University)

### CONFIDENTIAL FEEDBACK ON TEACHING QUALITY

### The purpose of this feedback/assessment is to help improve the overall quality of teaching.

- Kindly respond to the following questions in relation to the quality of teaching of this course.
- Your honest opinion is solicited and your feedback will not have any influence on your grade.

Indicate the response to the following questions on a scale of 1 to 6 where 1 is Strongly Disagree and 6 is Strongly Agree.

### **CORE TEACHING**

- 1 The course was covered effectively in an organized manner (includes uniform spacing of course lectures and assignments).
- 2 Lectures were communicated effectively (i.e. clarity of expression, reinforcement of key ideas).
- 3 Passion in teaching the subject was evident.

### **PEDAGOGY**

- 4 Appropriate teaching aids (includes blackboard/slides/videos/demos), when necessary, were used effectively.
- 5 A variety of questioning techniques were employed to enhance learning.
- 6 A broad perspective of the subject was given to stimulate learning.

### **CLASS INTERACTION**

- 7 Class participation/discussion was encouraged.
- 8 Accessibility for clarifying doubts/queries (inside and outside the class) was adequate.
- 9 Doubts/queries on the subject were answered convincingly.

### CONDUCT OF CIE

- 10 Syllabus was taught comprehensively.
- 11 Learning was enhanced by the effective use of assignments and tests.
- 12 Grading of assignments/answer scripts was impartial.
- 13 Students were given timely feedback on their performance.

### STUDENT-CENTRIC TEACHING

- 14 Classes kept the students interested and focused.
- 15 Students' point of view in class discussions was considered.
- 16 Openness to accept errors & omissions was shown.

## DISCIPLINE AND VALUES

- 17 Discipline was maintained in class.
- 18 Values and the teachings of Bhagawan were seamlessly integrated into the teaching process.

### **OVERALL RATING**

19 How would you rate the overall quality of teaching?

# SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING

(Deemed to be University)

# **Teaching Quality Feedback**

## Questionnaire for Experiment based Practicals:

- P1: Effective theoretical guidance related to practicals was given.
- P2: Planning and execution of practicals were explained.
- P3: Appropriate methodology to carry out the practicals was explained.
- P4: Practicals were supervised effectively.
- P5: Doubts and questions raised during the practicals were clarified effectively.
- P6: Helpful comments/suggestions were given on lab records for improvement.
- P7: Time given for practicals was adequate.
- P8: Equipment for practicals were in working condition.
- P9: Prescribed minimum number of practicals were completed and performed.
- P10: Evaluation of practicals was fair and impartial.
- P11: Any other suggestions and improvements. (Descriptive question with word limit of 50 words)

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# SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING

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# **Teaching Quality Feedback**

### **Questionnaire for Software Laboratory:**

- P1: Effective theoretical foundation related to programming exercises was given.
- P2: Planning and execution of programming or mini-project related exercises were explained.
- P3: Appropriate methodology to implement the software solution was explained.
- P4: Software lab sessions were supervised effectively.
- P5: Doubts and questions raised during the programming sessions were clarified effectively.
- P6: Assignments were corrected on time.
- P7: Constructive comments/suggestions were given on assignment/ lab exercises.
- P8: Time given for exercises/assignments was adequate.
- P9: Computing equipment were in working condition and of capability needed to perform the tasks.
- P10: Any other suggestions and improvements. (Descriptive question with word limit of 50 words)

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# Colloquium

Front-line science research builds on new ideas. Many activities at Sri Sathya Sai Institute of Higher Learning are directed towards merging of traditionally distinct scientific disciplines and creating new opportunities. Some of these research efforts have similar challenges and benefit from sharing of experience and expertise.

The Interdisciplinary Science Colloquium provides an opportunity for doctoral research scholars and the teaching faculty to share their research experiences with fellow researchers. All the science departments (across campuses) of the university participate, using the videoconference facility.

As a result, the colloquium fosters the capacity of a researcher to present the gist of his/her research in a manner that can be understood and appreciated by people from different scientific backgrounds. This helps break down the barriers between the various science disciplines and enriches the learning experience for all.

DATE	PRESENTER	DESIGNATION	TOPIC
21 Jun 2014	Dr. Shanmuga Vadivoo Natarajan	Associate Professor, Dept. of Microbiology, Annapoorana Medical College & Hospitals, Salem, Tamil Nadu	Avoiding the Antibiotic Armageddon
	Prof. V Chandrasekaran	Head, Dept. of Mathematics & Computer Science, SSSIHL	
28 Jun 2014	Sai Shyam Sharma	Asst. Professor, Dept. of Mathematics & Computer Science, SSSIHL	Setting the agenda/modus operandi
5 Jul 2014	Prof. Apparao M Rao	R A Bowen Professor of Physics, Clemson University, Clemson, SC, USA	Scalable Nanomanufacturing of Nanocarbon-based Supercapacitors for Next Generation Energy Storage
19 Jul 2014	Sri R S Sai Siddhardha	Doctoral Research Scholar, Dept. of Chemistry, SSSIHL	Next generation catalysts for fuel cells: An energy storage perspective
26 Jul 2014	Prof. S Panchanathan	Knowledge Enterprise Development for Advancing Research, Arizona State University, Tempe, AZ, USA	Transdisciplinary inspirations for today's innovative solutions
9 Aug 2014	Dr Sreedhara R Voleti	Managing Director, at INDRAS Pvt. Ltd., Hyderabad	Design in Discovery of Drugs - Help & Myth
23 Aug 2014	Ms. Iyer Shobha Ramamurthy	Doctoral Research Scholar, Dept. of Home Science, SSSIHL	Antioxidant potential of aniseeds (Pimpinella Anisum L.) and identification of phytochemicals- an in vitro study
30 Aug 2014	Prof. P C Sood	Professor (Retd.), Dept. of Physics, Benaras Hindu University, Varanasi	Searches for new elements - Past, Present and Future
6 Sep 2014	Dr. Pallav Kumar Baruah	Associate Professor, Dept. of Mathematics & Computer Science, SSSIHL	Mathematics-Exploring into complexity
13 Sep 2014	Dr. B E Pradeep	Asst. Professor, Dept. of Physics, SSSIHL	Update on the Institutional Ethics Committee (IEC) of SSSIHL
20 Sep 2014	Dr. (Mrs.) B Andallu	Associate Professor, Dept. of Home Science, SSSIHL	Causes of cancer and dietary agents for prevention & therapy of cancer
29 Nov 2014	Prof. V Chandrasekaran	Head, Dept. of Mathematics & Computer Science, SSSIHL	Pixel to Patient Care
27 Dec 2014	Prof. Sathya Gourisankar	Professor of Practice & Director, Master of Biomedical Innovation & Development (BioID) Program, Georgia Institute of Technology, Atlanta, GA, USA	Research in Biomaterials

24 Jan 2015	Ms. V Prathyusha	Teaching Assistant, Dept. of Chemistry, SSSIHL	Spatiotemporal Effects: Conformation of the Reactants vs Intramolecular Reactivity
7 Feb 2015	Sri Abishek H	Sri Abishek H, Dept. of Physics, SSSIHL	Laser sintering of Silver Nanoparticles
21 Feb 2015	Dr. Pinnelli S R Prasad	Principal Scientist, Gas Hydrate Group, National Geophysical Research Institute (CSIR-NGRI), Hyderabad	Gas Hydrate Resources

### **TOPICS ONLY**:

Avoiding the Antibiotic Armageddon

Setting the Agenda/Modus Operandi

Scalable Nanomanufacturing of Nanocarbon-Based Supercapacitors for Next Generation Energy Storage

Next Generation Catalysts for Fuel Cells: An Energy Storage Perspective

Transdisciplinary Inspirations for Today's Innovative Solutions

Design in Discovery of Drugs - Help & Myth

Antioxidant Potential of Aniseeds (Pimpinella Anisum L.) And Identification of Hytochemicals- An in Vitro Study

Searches for New Elements - Past, Present and Future

Mathematics - Exploring into Complexity

Institutional Ethics Committee (IEC), SSSIHL

Causes of Cancer and Dietary Agents for Prevention and Therapy of Cancer

Pixel to Patient Care

Research in Biomaterials

Spatiotemporal Effects: Conformation of the Reactants vs. Intramolecular Reactivity

Laser Sintering of Silver Nanoparticles

Gas Hydrate Resources

### **Research Publications in Peer Reviewed Journals**

# **Faculty of Sciences**

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L A Avinash Chunduri, Tanu Mimani Rattan, Muralikrishna Molli, and K Venkataramaniah (2014) Single step preparation of nano size gamma - alumina exhibiting enhanced fluoride Adsorption. *Materials Express*, 4.

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Title- Sri Sathya Sai System of Integral Education (SSSSIE)

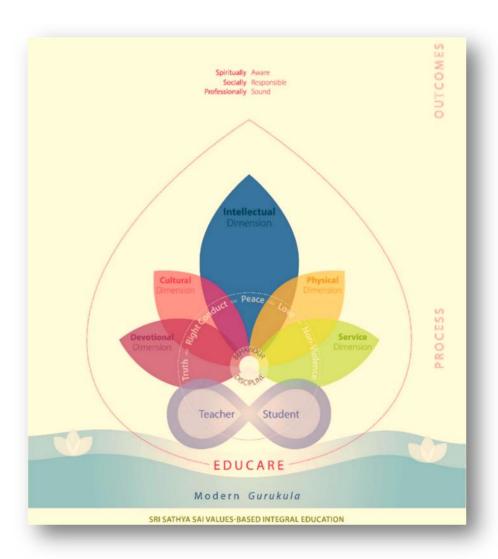
**Objectives of the Practice**- According to the Revered Founder Chancellor, Bhagawan Sri Sathya Sai Baba- *End of Education is Character*. Keeping in mind this dictum, the objective of this 'best practice' is to impart education which moulds students into ideal citizens wedded to the service of the society. SSSSIE aims to combine academic competence with development of good character, noble attitudes and values, social sensitivity and spiritual awareness in all students.

Context- Education is increasingly becoming an instrument for filling the minds with mere information. The students are charged substantially high fees in the name of imparting world class education. The sole purpose of education has become earning a livelihood and not acquiring life skills. The worth of an educational institution is being judged by the placements and pay packages it can offer to its students. Revered Founder Chancellor observed- At present, colleges are infected with anxiety and perplexity, discontent and ill-discipline, irreverence and futility; they have lost the status of temples of learning, where youth are shaped into self-reliant, contented and enterprising heroes.

In this context, Sri Sathya Sai Baba, the Revered Founder Chancellor, had foreseen the need for values based education programme and had taken concrete steps to implement the same into a formal educational system known as SSSSIE. He observed The crisis is educational field is well known. Many attempts have been made to bring about changes in the educational system. But it is forgotten that what gives education its true value and significance is its moral and spiritual content.

**Practice-** The word education, according to the Oxford dictionary, has come out of the root word *educare*. According to the Revered Founder Chancellor, Bhagawan Sri Sathya Sai Baba- The word Educare has its origin in the Latin word, 'educere', which means 'to elicit'. Educare has two aspects, the worldly and the spiritual. Worldly education brings out the latent knowledge pertaining to the physical world. Spiritual education brings out the inherent divinity in man. So, both worldly and spiritual education is essential, without which the human life has no value.

This unique model of education was established on the lines of **Gurukula** system of education of the yore to make the students Professionally Sound, Socially Responsible and Spiritually Aware. It has five dimensions- Intellectual, Cultural, Devotional, Physical and Service to develop the students in holistic individuals.



The unique and distinctive features of this system of education are:

- Equal emphasis on curricular and co-curricular aspects
- Integrating values with secular knowledge through curriculum and classroom teaching
- Curriculum steeped in rich Indian Culture
- Synthesis of Science and spirituality
- Compulsory residential system
- One in five teachers stay in the hostels guiding and mentoring the students in academics and other aspects
- Inculcating the spirit of self-reliance in students in the hostels- self-reliance means reliance on one's own innate capabilities and talents which is facilitated in the students through dignity of labour and respect for work
- Open admissions policy irrespective of caste, creed, religion or income or region
- Free education for all students

As the Sri Sathya Sai System of Integral Education offers FREE EDUCATION for all irrespective of caste, creed, religion or region with no fees whatsoever have been charged from any students; no non-recurring budget (salaries) are taken from State or Central Govt.; and totally a residential nature of education have been offered – no constraints have been encountered so far by Sri Sathya Sai Institute of Higher Learning.

**Evidence of Success**- According to Bharat Ratna Dr. APJ Abdul Kalam, the then President of India at the 21st Convocation of the Sri Sathya Sai Institute of Higher Learning dt. 22.11.2002:

"The purpose of real education is to initiate a learning process that transforms students into good human beings with knowledge and value systems. Is values-based education possible? Sri Sathya Sai Institute of Higher Learning has given an answer in the affirmative. I would like to congratulate the Institute for this noble education."

Few tangible results of the SSSSIE:

- Academic calendar is followed scrupulously with clockwork precision
- Teachers and students grow in a spirit of camaraderie hence there has never been an occasion of student unrest or ragging.
- Alumni Impact Analysis: An alumni impact analysis survey was carried out in the year 2011 where total of 744 alumni completed the survey. The broad findings are given below:

	in 10 alumni felt that their experience at the university contributed "VERY SIGNIFICANTLY" to developing their ability / competence in one or more of the following:		
	Integri	ty	n = 388
Work e		ethics	

Work ethics
Concern for society and environment
Dealing with different types of people
Working in teams

in 10 alumni felt that their experience at the university contributed "SIGNIFICANTLY" to developing their ability / competence in one or more of the following:

n = 388

Patience and perseverance

Inspire others by example

Leadership

Organizing time effectively

**Problems Encountered and Resources Required-** In the SSSSIE, a complete residential system of education is followed where the dictum- 'Each lives for the other and all live for God' is sincerely followed. The faculty and the students live like on family in the institute promoting the spirit of camaraderie. Hence, the institute NEVER encounters any problems whatsoever. In line with the dictum of Free education for ALL by the Revered Founder Chancellor, education is imparted totally free of cost where the various needs of the students, teachers and non-teaching staff are taken care by the parent trust of the institute. The staff and students on their part exemplify the virtue of 'Simple Living and High Thinking'. Hence, the institute never faced any paucity of resources.

Notes (Optional)

**Title-** Teaching Quality Feedback (TQF)

Objectives of the Practice- According to the Revered Founder Chancellor Bhagawan Sri Sathya Sai Baba, a teacher should be an 'acharya' who teaches students by his acharana- conduct (practice). Teachers should not only have knowledge of the subject but the skills to impart the same to the students. He/she should have the spirit of being a student for life to never stop learning and kindle the same spirit in the students. Objective feedback from the 'taught' about the teaching process goes a long way in providing the necessary inputs to the teacher to assess his/her teaching vis-à-vis the benchmarks of an ideal teacher and bring about the necessary improvements.

Context- The rigour of the present day workplace like corporates, research institutions, entrepreneurship etc., requires the students to be thorough in their basics, also acquire additional knowledge in their specific fields of study and also be innovative in their approach. Due to this, the teaching process is witnessing a paradigm shift from the traditional chalk and talk method to the interactive and participative type of teaching enhanced by the modern teaching aids available to the teachers. In this context, to undertake effective teaching, the feedback from students about the teaching process becomes very important. For the feedback to be effective, following points had to be addressed:

• Has to be confidential so that students can give candid and constructive inputs about the teaching process.

- The questionnaire should be designed in such a way that it captures information about all the aspects of teaching learning process.
- The analysis of the feedback to be presented to the faculty in a way so that they
  can take steps to improve/modify (if required) their teaching process

## Practice-

A committee was constituted to do an in-depth review of the teaching learning process and it arrived at the six broad dimensions of **Core Teaching, Pedagogy, Class Interaction, Conduct of CIE, Student Centric Teaching, Discipline & Values** and 3 to 4 questions in each dimension. A Likert scale of Strongly Disagree- Strongly Agree was employed for scaling the responses of the students. Different set of questionnaires were designed for Theory, Experiment based Practicals and Software Lab. The questionnaires are coded in PHP and administered through a specially dedicated server. The feedback sessions in the respective computer labs of the campuses were kept completely anonymous to elicit candid responses from the students.

Feedback is recorded at the end of every semester from the students about the teaching process of the semester. The responses received are automatically compiled through a computer programme and are made available to the faculty and the HoDs at the beginning of the next semester. The HoDs receive the feedback of the faculty members of the whole department and they counsel/advise wherever necessary after going through the reports of the individual faculty. Following are the set of questions for a theory subject.



## **SRI SATHYA SAI** INSTITUTE OF HIGHER **LEARNING**

(Deemed to be University)

#### CONFIDENTIAL FEEDBACK ON TEACHING QUALITY

#### The purpose of this feedback/assessment is to help improve the overall quality of teaching.

- Kindly respond to the following questions in relation to the quality of teaching of this course.
- \* Your honest opinion is solicited and your feedback will not have any influence on your grade.

Indicate the response to the following questions on a scale of 1 to 6 where **1 is Strongly Disagree and 6 is Strongly Agree**.

#### CORE TEACHING

- 1 The course was covered effectively in an organized manner (includes uniform spacing of course lectures and assignments).
- 2 Lectures were communicated effectively (i.e. clarity of expression, reinforcement of key ideas).
- 3 Passion in teaching the subject was evident.

#### PEDAGOGY

- 4 Appropriate teaching aids (includes blackboard/slides/videos/demos), when necessary, were used effectively.
- 5 A variety of questioning techniques were employed to enhance learning.
- 6 A broad perspective of the subject was given to stimulate learning.

#### CLASS INTERACTION

- 7 Class participation/discussion was encouraged.
- 8 Accessibility for clarifying doubts/queries (inside and outside the class) was adequate.
- 9 Doubts/queries on the subject were answered convincingly.

#### CONDUCT OF CIE

- 10 Syllabus was taught comprehensively.
- 11 Learning was enhanced by the effective use of assignments and tests.
- 12 Grading of assignments/answer scripts was impartial.
- 13 Students were given timely feedback on their performance.

#### STUDENT-CENTRIC TEACHING

- 14 Classes kept the students interested and focused.
- 15 Students' point of view in class discussions was considered.
- 16 Openness to accept errors & omissions was shown.

#### DISCIPLINE AND VALUES

- 17 Discipline was maintained in class.
- 18 Values and the teachings of Bhagawan were seamlessly integrated into the teaching process.

## OVERALL RATING

19 How would you rate the overall quality of teaching?



# SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING

(Deemed to be University)

# **Teaching Quality Feedback**

## Questionnaire for Experiment based Practicals:

- P1: Effective theoretical guidance related to practicals was given.
- P2: Planning and execution of practicals were explained.
- P3: Appropriate methodology to carry out the practicals was explained.
- P4: Practicals were supervised effectively.
- P5: Doubts and questions raised during the practicals were clarified effectively.
- P6: Helpful comments/suggestions were given on lab records for improvement.
- P7: Time given for practicals was adequate.
- P8: Equipment for practicals were in working condition.
- P9: Prescribed minimum number of practicals were completed and performed.
- P10: Evaluation of practicals was fair and impartial.
- P11: Any other suggestions and improvements. (Descriptive question with word limit of 50 words)

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# SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING

(Deemed to be University)

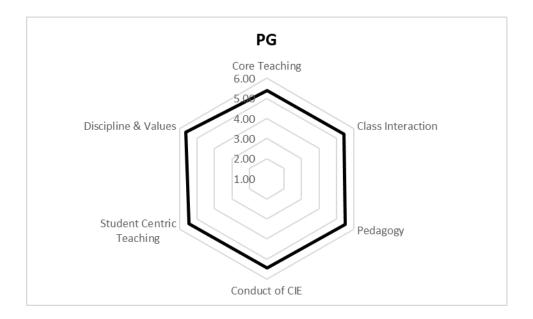
# **Teaching Quality Feedback**

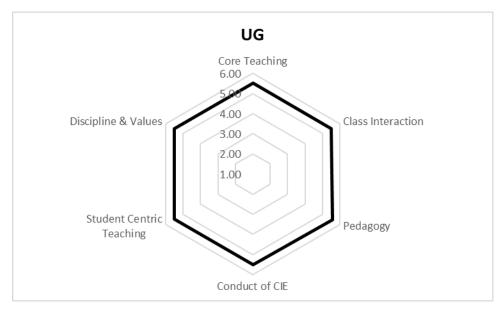
## Questionnaire for Software Laboratory:

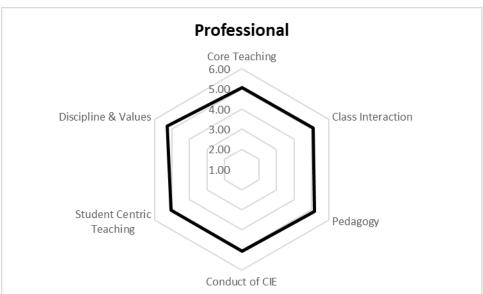
- P1: Effective theoretical foundation related to programming exercises was given.
- P2: Planning and execution of programming or mini-project related exercises were explained.
- P3: Appropriate methodology to implement the software solution was explained.
- P4: Software lab sessions were supervised effectively.
- P5: Doubts and questions raised during the programming sessions were clarified effectively.
- P6: Assignments were corrected on time.
- P7: Constructive comments/suggestions were given on assignment/ lab exercises.
- P8: Time given for exercises/assignments was adequate.
- P9: Computing equipment were in working condition and of capability needed to perform the tasks.
- P10: Any other suggestions and improvements. (Descriptive question with word limit of 50 words)

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**Evidence of Success**- The feedback of students helps the teachers to ascertain the areas where improvement is needed (if any). This helps them in planning for the classes in a better way for the subsequent semester. The HoDs study the feedback reports of the individual faculty and use it as an effective tool to allocate subjects to the teachers in the subsequent semesters. The subjects where the feedback from the students is poor, the HoDs initiate corrective action. They also identify the strong areas of a faculty based on the feedback and give them subjects in those areas while deciding the workload in the following semesters. The feedback is also taken into consideration as one of the components in selecting the best teacher for Sai Krishna Best Teacher award from each campus once in two years. **Radar chart of 2014-15**-theory for the Undergraduate, Postgraduate and Professional Programmes are attached for reference.







Problems Encountered and Resources Required- Few issues were encountered regarding administering the feedback to the whole student community at the end of the semester through the campus intranet. This was initially addressed by dedicating the net connectivity only to the computer labs during feedback time. After the installation of dedicated lease lines from the individual campuses to the main campus this problem also has been addressed.

Notes (Optional)

