

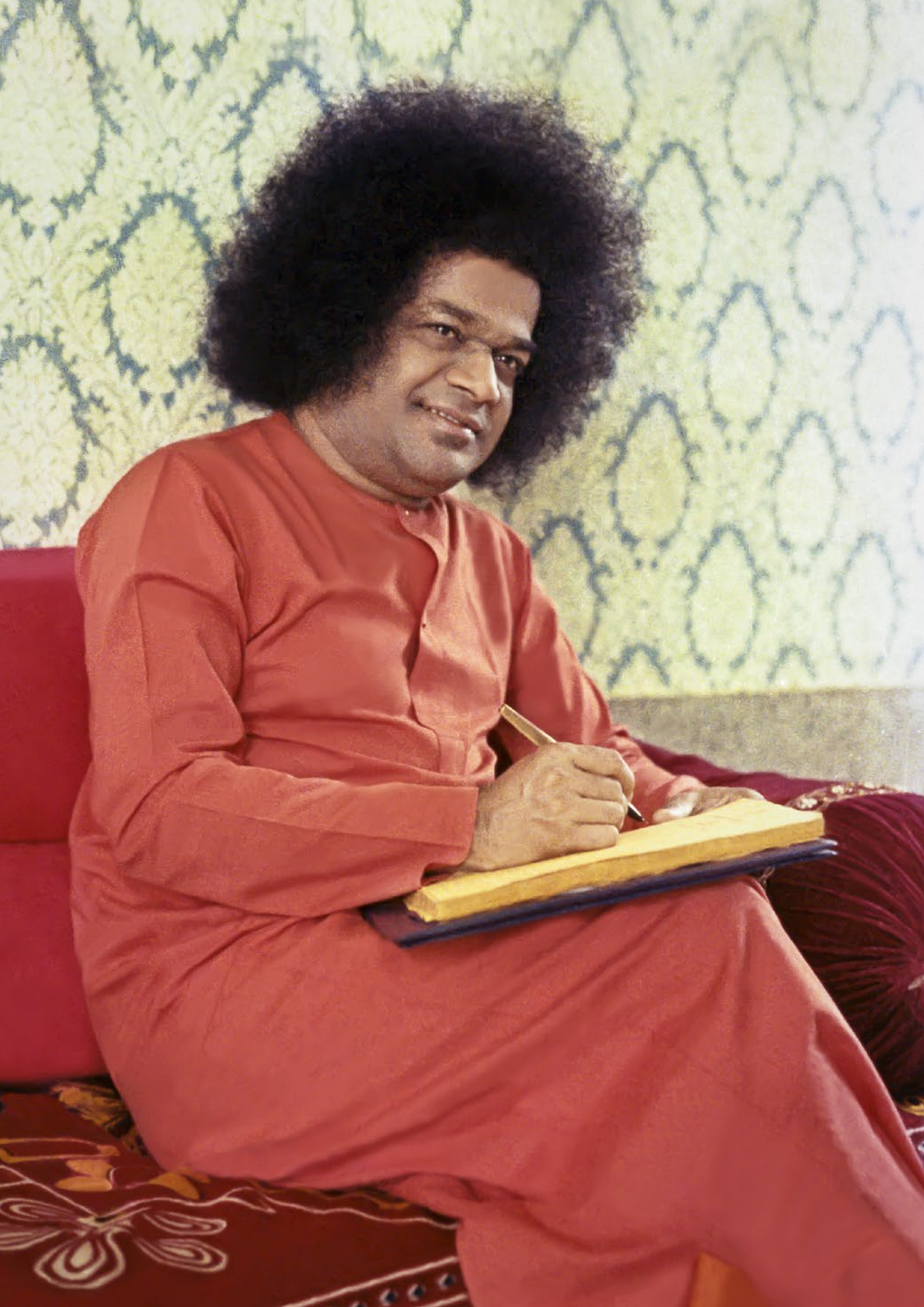


ANNUAL REPORT 2017

SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING

In this university, the medium of instruction is discipline. The first, second and third languages are love, service and sadhana (spiritual discipline).

Sri Sathya Sai Baba
Revered Founder Chancellor, SSSIHL



FOREWORD

It is reassuring to note that our Institute keeps moving forward at a steady pace in both teaching and research, without compromising on excellence. In line with the vision of Bhagawan Baba, Sri Sathya Sai Institute of Higher Learning (SSSIHL) is preserving and disseminating knowledge with the objective to be amongst the top-notch Institutes of our country. It is therefore with immense pleasure that I write this foreword for the SSSIHL Annual Report 2017.

As many of you are aware, this Institute is uniquely placed in terms of imparting a distinctive type of education, where character building and academics (including research) are given equal importance. It is this particular feature—one that is very much relevant to the times that we live in—that attracts many aspirants to pursue their higher studies at SSSIHL.

For entry in 2016, for example, we had 3000 applicants from over 25 states of the country, contesting for 508 seats across our undergraduate and postgraduate programmes. With the exceptional student-teacher ratio of 9:1, coupled with one-on-one access to computers for all students, the quality of teaching at our Institute is at its best. In large measure, this success can be attributed to the innovative bright minds, the SSSIHL faculty, two-thirds of whom hold a Ph.D. in their area of expertise. This number is ever-increasing as the remaining members of the faculty are encouraged to pursue their doctoral research work.

Our overall student examination pass percentage is 94, which is one of the highest in the country. In an effort to achieve our vision to be a premier Institute, we continue our sincere efforts in Research & Development. At SSSIHL, we now have, for the first time, over a hundred doctoral research scholars. For a university comprising a modest number of students (around 1300), this upward trend is quite remarkable.

Our continuous efforts, supported by well-established infrastructure, facilitated an enhancement in research output, as evident in this annual report. We continue to invest in state-of-the-art research facilities to improve the research capabilities at SSSIHL.

The fact that almost a fifth of our final-year postgraduate students obtained top ranks at national level competitive examinations last year exemplifies the academic quality of our University. Our faculty at all the Sciences, Management and Humanities departments are actively involved in several needs-based research projects funded by external funding agencies (both Government and Non-Government). The results of their investigations were published in several peer-reviewed scientific journals of high repute. Indeed, over 200 research articles were published during the academic year 2016/17.

In this context, I congratulate all our talented faculty, remarkable students and active alumni for doing a great job. Looking ahead, let us not relax and be complacent on our past accomplishments, but rather continue to make every collective effort towards making greater progress in achieving our Revered Founder Chancellor's vision and mission to be a premier University of teaching and excellence in research.

I have no doubt in my mind, that with the unflinching and generous support of the Sri Sathya Sai Central Trust, combined with the everlasting Love and Blessings of our beloved Bhagawan, this Institute will continue to maintain its special status amongst all the educational institutions in our country.

We look forward to your continued patronage.

Prof. K B R Varma
Vice-Chancellor

AT A GLANCE

2.6 : 1

Student Computer Ratio



₹ 10.45 CR.

Expenditure on Equipment & Infrastructure



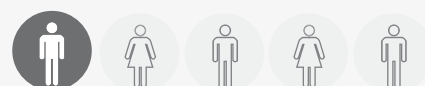
₹ 1.94 CR.

Research & Teaching Grants



508

Total Admissions



1/5 applicants is admitted

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69

Doctoral Research Scholars



130

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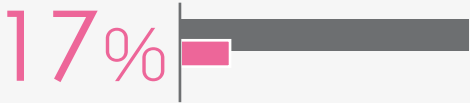
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Student Teacher Ratio



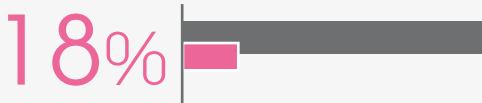
1 in 4

Teachers are Residential



Undergraduate Acceptance Rates

373 / 2225
accepted / eligible applicants

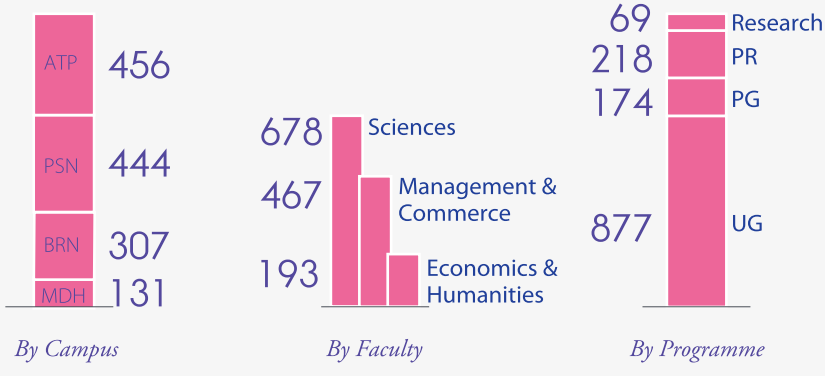


Postgraduate & Professional Acceptance Rates

135 / 731
accepted / eligible applicants

1338

Student Profile



155
Teacher Designations

- 20 Professor
- 34 Associate Professor
- 88 Asst. Professor
- 13 Others

66%
PhD
*21 pursuing

2:1
academic administrative
Staff Profile

VALUES-BASED INTEGRAL EDUCATION



“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.”

Sri Sathya Sai Institute of Higher Learning (Deemed to be University), Prasanthi Nilayam, Andhra Pradesh, India, is a visible manifestation of Bhagawan Sri Sathya Sai Baba's vision of education for human transformation.

Bhagawan Baba has designed the system of Sri Sathya Sai Values-based Integral Education in such a manner that between the time an 18-year old student joins the university and when she or he graduates (at the age of 21 or 23), there is a deep *inner* transformation that takes place. This concept is very unique at the university level.

The University hosts over 1350 undergraduate, postgraduate and professional programme students across four campuses:

For women students:

- o Anantapur Campus at Anantapur, Andhra Pradesh

For men students:

- o Prasanthi Nilayam Campus, at Puttaparthi, Andhra Pradesh
- o Brindavan Campus, at Whitefield, Bangalore, Karnataka
- o Muddenahalli Campus at Muddenahalli, near Chickaballapur, Karnataka

The University has a merit-based open admissions policy for all, irrespective of income, religion or region.

SSSIHL provides free education to students for all programmes of study. This includes waiver of all fees - tuition, examinations, laboratory, library, sports and medical.

Programmes offered include undergraduate, postgraduate, professional and research.

A MODERN GURUKULA

Sri Sathya Sai Institute of Higher Learning was founded to inculcate ethical and moral values in students. These ethics and morals form the undercurrent of every subject taught at the university. Here, the development of a student's character is just as important as imparting knowledge.

This holistic development of students can only be possible in an

environment that encourages the development of the student's mind, body and spirit.

To facilitate this, the University has a compulsory residential policy for all students. The environment is similar to the ancient Indian *gurukula* system of education, in a modern context. Teachers and students live and grow together in an atmosphere of mutual trust and unity.

Most students typically spend between two to five years pursuing an education at SSSIHL. As a result, what differentiates them from graduates of other universities is the transformation of their hearts, not just the training of their minds.

RESIDENTIAL CHARACTER

The compulsory residential system is an essential ingredient for the university's Values-based Integral Education to achieve its objective of transformation. This is where the concept of the modern *gurukula* really comes to the fore. In fact, Bhagawan Baba Himself designed the entire system and its activities, right down to the daily routine of students!

Residential teachers voluntarily stay with students at the hostel. They choose this responsibility in addition to their academic and administrative workload. Like students, they also share rooms with typically two teachers in a room.

They perform three fundamental tasks:

- Ensure the all-round welfare of students
- Discharge specific duties for the upkeep of the hostel daily routine and general discipline
- Facilitate the smooth functioning of the hostel Self Reliance departments

Student Diversity

26/29

States of India



The Process

The diagram below forms the basis of the system of Values-based Integral Education at SSSIHL.

The base is the concept of a modern *gurukula* that sustains all relationships and activities at SSSIHL. It is responsible for creating and sustaining the congenial environment necessary for the teacher-student interaction to grow and develop.

Adherence to discipline and appropriate behaviour are the two important aspects that encompass all interactions.

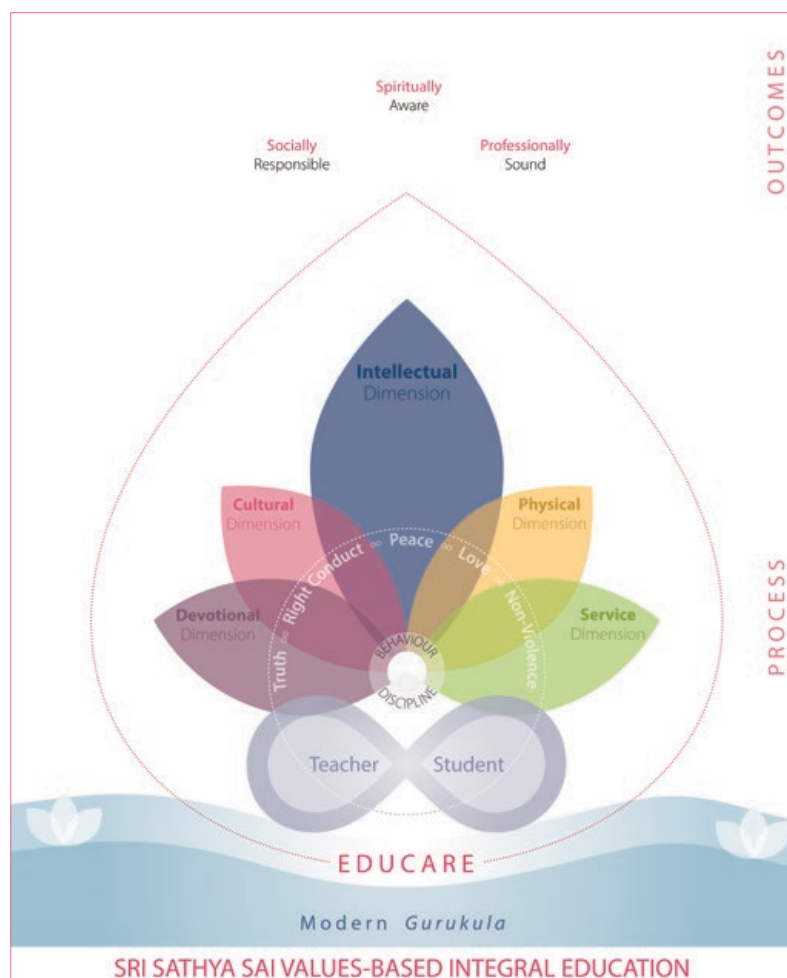
The five human values of Truth, Right Conduct, Peace, Love and Non-violence form the undercurrent of all the dimensions of integral education.

These dimensions are: Intellectual, Physical, Cultural, Devotional and Service. The key activities for each of these dimensions form the basis of most of the time that students spend at SSSIHL.

The Outcome

The outcome of the system of Values-based Integral Education at SSSIHL are threefold. It prepares all graduates to be:

- Spiritually aware
- Socially responsible and
- Professionally sound



UNIVERSITY GOVERNANCE

SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING (DEEMED TO BE UNIVERSITY) IS AN INDEPENDENT AND SELF-GOVERNING INSTITUTION. IT WAS ESTABLISHED BY THE SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING (PUBLIC CHARITABLE TRUST), WHICH IN TURN HAS BEEN ESTABLISHED BY THE SRI SATHYA SAI CENTRAL TRUST. BHAGAWAN SRI SATHYA SAI BABA IS THE FOUNDER OF THESE TRUSTS.

THE TRUST

The Sri Sathya Sai Institute of Higher Learning (Public Charitable Trust) was founded to foster the culture of India and promote in the students and teachers an awareness and understanding of the social needs of the country; with special focus to the needs of the rural population. It is aimed to inculcate in students a world perspective- an international outlook imbibing human values along with a spiritual and secular education. The Trust members for 2016/17 were:

- Justice A P Misra, Former Judge, Supreme Court of India
- Sri K Chakravarthi, Member-Secretary, Sri Sathya Sai Central Trust
- Sri T K K Bhagwat, Member, Sri Sathya Sai Central Trust
- Sri S S Naganand, Member, Sri Sathya Sai Central Trust
- Sri R J Rathnakar, Member, Sri Sathya Sai Central Trust
- Prof. S P Thyagarajan, Former Vice-Chancellor, Univ. of Madras

THE PRINCIPAL BODIES

The administrative and academic functioning of the university is carried out by the following two principal bodies:

1. The Board of Management
2. The Academic Council

THE BOARD OF MANAGEMENT

The Board of Management is the principal authority of the university, responsible for its general management and administration. Its members for 2016/17 were:

- Prof. K B R Varma, Vice-Chancellor, SSSIHL (Chairman)
- Sri S S Naganand, Member, Sri Sathya Sai Central Trust Nominee, SSSIHL (Public Charitable Trust)
- Dr. (Ms.) Renu Swarup, Senior Advisor, Dept. of Biotechnology, Ministry of Science & Technology, and Managing Director, Biotechnology Industry Research Assistance Council (BIRAC)
- Dr. Sandip Chatterjee, Officer on Special Duty/Scientist F, Ministry of Electronics and Information Technology, Govt. of India
- Prof. Srinivasan Chandrasekaran, Professor (Hon.), Dept. of Organic Chemistry, Indian Institute of Science
- Prof. S Siva Sankara Sai, Dean, Faculty of Sciences, SSSIHL
- Prof. (Miss) Rajeshwari C Patel, Dean, Faculty of Economics & Humanities, SSSIHL
- Prof. G Nageswara Rao, Head, Dept. of Chemistry, SSSIHL
- Prof. R Prabhakara Rao, Head, Dept. of Economics, SSSIHL
- Dr. Naren Ramji, Registrar, SSSIHL (Secretary)

In 2016/17, The Board of Management met on 16 July 2016, 17 September 2016, 21 November 2016 and 18 February 2017.

THE ACADEMIC COUNCIL

The Academic Council is the principal academic body of the university. It has general control over and is responsible for the maintenance of standards of teaching, research and training, approval of syllabus, coordination of research activities, and examinations and tests within the university. Its external members for 2016/17 were:

- Prof. Ajay K Sood, Dept. of Physics, Indian Institute of Science, Bangalore
- Prof. Ajaib Singh Brar, Vice-Chancellor, Gurunanakdev University, Amritsar, Punjab
- Prof. M H Bala Subramanya, Professor & Chairman, Dept. of Management Studies, Indian Institute of Science, Bangalore
- Dr. K R Suresh Nair, President, Research & Development, NeST Group and Chief Technology Officer, SFO Technologies Pvt. Ltd.
- Dr. V Bhujanga Rao, DS & Director General - Naval Systems and Materials, DRDO, New Delhi
- Sri Brij Mohan, Scientist 'G' & Member Secretary, National Research Board, DRDO, New Delhi

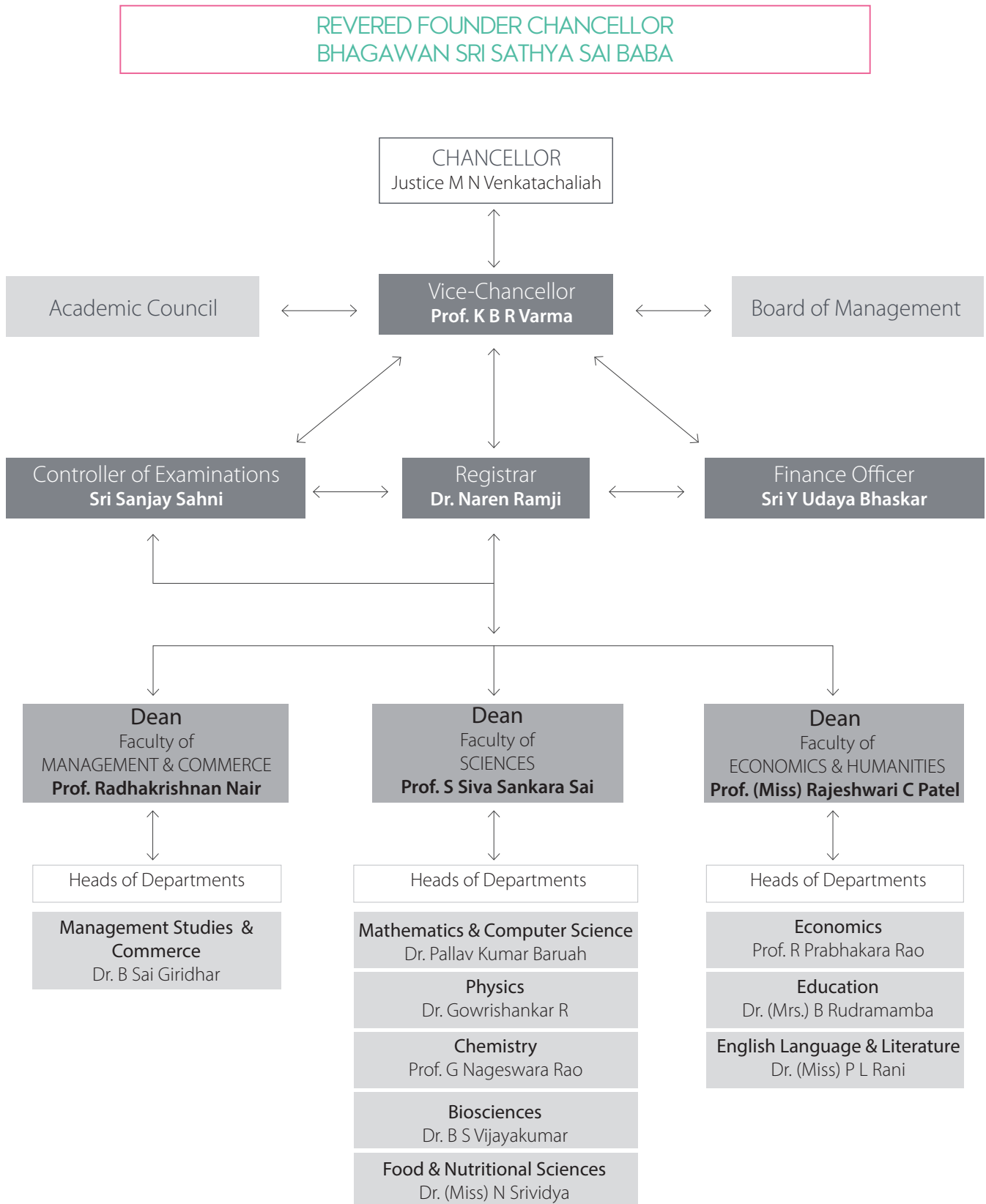
In 2016/17, The Academic Council met on 15 October 2016.

IMPORTANT COMMITTEES

In addition to the principal bodies that govern the university, there are various committees that have been set up to ensure that academics and administration are in accordance with the high standards that SSSIHL has striven to consistently maintain. Some of these committees include:

- The Boards of Studies
- The Finance Committee
- Planning and Monitoring Board
- Internal Quality Assurance Cell (IQAC)
- Research Advisory Board
- Institutional Ethics Committee
- Institutional Biosafety Committee
- Building and Works Committee
- Campus-Hostel Management Committee
- Research Conferments Cell

UNIVERSITY STRUCTURE



Sri Sathya Sai Institute of Higher Learning (Deemed to be University) has been established by Sri Sathya Sai Institute of Higher Learning (Public Charitable Trust), which in turn has been established by Sri Sathya Sai Central Trust. Bhagawan Sri Sathya Sai Baba is the founder of these Trusts.

ACADEMIC WORKSHOPS & CONFERENCES

TO FACILITATE WIDER EXPOSURE TO THE DEVELOPMENTS IN ACADEMIA AND INDUSTRY AND ENABLE THE EXCHANGE OF IDEAS, THE UNIVERSITY CONDUCTED TWENTY IN-HOUSE NATIONAL AND INTERNATIONAL WORKSHOPS AND CONFERENCES DURING THE ACADEMIC YEAR 2016/17.

For full reports of all SSSIHL Workshops & Conferences in 2016/17, kindly visit sssihl.edu.in

CURRENT METHODOLOGIES IN FOOD MICROBIOLOGY AND NUTRITIONAL IMMUNOLOGY

Dept. of Food & Nutritional Sciences

22-23 Jul 2016

Microbiologists came together for a hands-on workshop to discuss topics ranging from isolation and identification of food pathogens from high risk foods, food allergens, antimicrobial screening and testing against food pathogens and the principle of ELISA technique.

CAPITAL MARKETS & MUTUAL FUNDS

Dept. of Management & Commerce

23 July 2016

Financial literacy has been the focus area in many countries and in India, its awareness is on the rise. With many developments in the investor education segment, people are now exposed to more information about the Capital markets and make better financial decisions. Eminent professionals from the financial services industry participated in a session of sharing knowledge and understanding of Capital Markets and Mutual Funds.

External experts and guests from: National Institute of Securities Markets (NISM), Birla Sun Life Mutual Fund (BSLMF) and Stratadigm

SAMEEKSHA (MBA FOUNDATION DAY) THIRTIETH ANNIVERSARY OF THE SSSIHL MBA

Dept. of Management & Commerce

20-21 Aug 2016

21 August 1986 is a significant milestone in the history of Sri Sathya Sai Institute of Higher Learning. Bhagawan Baba, the Revered Founder Chancellor of the Institute, inaugurated the Masters of Business Administration (M.B.A.) programme on this day. Celebrating thirty years of this programme, several senior teachers of the department and a member of the Sri Sathya Sai Central Trust reflected on the teachings of Bhagawan and how His teachings and time spent with them over the past decades had shaped the department and indeed their attitudes towards students, teaching and the like.

MERGERS AND ACQUISITIONS - CURRENT TRENDS: GLOBAL VS INDIAN CORPORATE SCENARIO

Dept. of Management & Commerce

27 Aug 2016

The workshop was based on the key factors in Mergers Acquisitions (M&A) – people, processes and systems. Of these, it highlighted that only people issues made a difference to the outcomes of a M&A, such as the rights of employees in M&A scenarios, responsibilities of shareholders, cost synergies and the role of investment banks in the corporate merger scenarios. These were discussed by a panel of experts.

External experts and guests from: IB, Tractors and Farm Equipment Limited (TAFE)

EFFECTIVE STRATEGIES FOR IMPLEMENTATION OF THE TWO-YEAR B.ED. CURRICULUM

Dept. of Education

9-10 Sep 2016

The workshop brought together teachers, trainers and administrators to discuss insights into novel areas for research, reforms in the B.Ed. curriculum and share the best practices across institutions to make teacher education diverse and multifaceted. Inclusive education, novel teaching-learning methods, the need for teachers to become more humane, the role of a teacher in handling young minds and the need for the extension of the B.Ed. programme from one to two years were deliberated upon.

External experts and guests from: Andhra University, IASE and Dravidian University

TEACHING WORKSHOP

Dept. of Mathematics & Computer Science

20-21 Sep 2016

From the teachers, for the teachers. An internal workshop that brought together all the teachers of the department in an effort to share and impart skills and explore avenues to continue their research and exploration in order to keep themselves updated with the current happenings in their respective areas of work.

From Computer Networks to Pushdown Automata, Singular Value Decomposition to Sorting techniques, the two-day workshop brought many ideas and shared learnings to the forefront.

ENTREPRENEURSHIP

Dept. of Management & Commerce

16 Nov 2016

The workshop was conducted by a noted entrepreneur and trainer, Mr. Naveen Lakkur. He is an expert in building IT start-ups and has demonstrated his proficiency in innovating, validating and converting ideas into working business models. The sessions of the workshop included exploring entrepreneurship, founder focus, inspiration, ideation, idea pitching, incubation and stitching the pieces together to start a start-up

ETERNAL VALUES AND THE SANSKRIT LANGUAGE

Sub-Dept. of Sanskrit

1 Dec 2016

The importance of Sanskrit language in Indian Culture brought together students of the university, Sri Sathya Sai Higher Secondary School and experts on the language for a day full of Divine discourses, Quiz, breakout sessions and talks on the importance of appreciating the language of Sanskrit, the mother of all languages.

External experts and guests from: SVYASA (YOGA University)

THE NATIONAL WINTER SCHOOL IN MATHEMATICS

Dept. of Mathematics & Computer Science

26-31 Dec 2016

The National Winter School in Mathematics brought together dozens of undergraduate students of Indian universities and exposed them to the world of Mathematics and made them experience the joy and fun of Mathematics.

Topics included: Three methods to tackle non-linear problems in PDE, Phase Portraits for 2 x 2 systems of ODE, Introduction to and Applications of Cryptography, Mathematics in human thought, Singular Value Decomposition and applications, Introduction to Game theory - Nash's equilibrium and applications, etc.

External experts and guests from: IIT Gandhinagar, University of Iowa, TIFR, IISc, IIT Madras, TCS, Bosch, Amazon, etc.

INFRASTRUCTURAL DEVELOPMENT AND PUBLIC-PRIVATE PARTNERSHIP FINANCING IN INDIA

Dept. of Management & Commerce

28 Jan 2017

The workshop brought together experts to discuss the current environment of Infrastructural Development and Public-Private Partnership Financing in India and the state of play of infra companies, the lending aspect of infra finance, the vision and role of government in infra projects and perspectives and expectations of an equity investor in infra projects.



External experts and guests from: ICICI, Iridis Advisory, National Highways Authority of India (NHAI), L&T Infrastructure Finance and GMR Group.

SEMINAR SERIES ON SOCIAL ENTREPRENEURSHIP AND INNOVATION

Dept. of Mathematics & Computer Science

4 Feb 2017

The seminar series was anchored by Dr. Ram Ramdas, CEO Herald Logic, Adjunct Professor IITB Centre for Innovation and Entrepreneurship. The activities included talks by resource persons, model building and analysis with guidance from the experts spanning over four full days over a few months.

External experts and guests from: School for Social Entrepreneurs India, FISE, Tata Trusts.

BIOSCIENCES: POTENTIALS AND FUTURE PROSPECTS

Dept. of Biosciences

13-14 Feb 2017

The two-day national seminar highlighted the dynamics and the speed with which different fields in Biosciences is advancing. The purpose of the seminar was to emphasize the need for basic knowledge of Biosciences as a foundation for all the branches of current research on life sciences.

External experts and guests from: BITS Pilani, ICMR, ICAR and Defence Food Research Lab

MANAGING CORPORATE EXPECTATIONS- ASSERTIVENESS AND INTEGRITY

Dept. of Management & Commerce

14-15 Feb 2017

A Management Development Programme that sought to bring out the entrepreneurs in students and teachers alike, but with a moral compass. Thoughts on dharma, unity in thoughts, words and deeds, honesty, transparency, ethics and corporate expectations were the key soundbites throughout the two days.

External experts and guests from: Tractors and Farm Equipment Limited (TAFE), L&T Technology Services, Mar Labs, Rane Group, MMC Private Limited, Trayee Business Solutions and Sai Seva

FRONTIERS IN PURE AND APPLIED CHEMISTRY

Dept. of Chemistry

18 Feb 2017

Drug Delivery through Carbon and Silica based Nano Structures, Electrochemistry and its Applications, Basic Environmental Chemistry, Earth's Atmospheric Chemistry, Drug Recombination, Surface Engineering, FTIR Spectroscopy and Imaging for Polymer Analysis and Chemical Modes of delaying the Auto ignition of Gasoline Based Fuels. For students, the two days was an exposé of frontier technologies and research in pure and applied chemistry.

External experts and guests from: Jawaharlal Nehru Centre for Advanced Scientific Research, IISc. Bangalore, LGC-Promochem India Pvt. Ltd., GMK Research Laboratories, Indian Institute of Science, Hindustan Petroleum, etc.

WOMEN ENTREPRENEURSHIP AND ITS DIFFERENT DIMENSIONS

Dept. of Management & Commerce

20 Feb 2017

The workshop aimed to develop and strengthen the ethical entrepreneurial qualities among students and enable them to acquire the necessary knowledge and managerial skills to become an entrepreneur and serve society. It analysed the pros and cons of a career in entrepreneurship and encouraged the young, aspiring women towards it.

External experts and guests from: HMOL Ventures Pvt. Ltd., PepsiCo New York, Art@SFactor, Sai Advisory Services, Vitasta Consulting Pvt. Ltd.

TUTORIAL WORKSHOP ON NON-LINEAR OPTICS| LIGHT MATTERS

Dept. of Physics

26-27 Feb 2017

A highly technical workshop on Non-Linear, a branch of optics that describes the behaviour of light in nonlinear media, that included lectures on Nonlinear Optical Phenomenon, Ultrafast laser pulses, and more.

External experts and guests from: University of Hyderabad, IIT Madras.

MOLECULAR TECHNIQUES AND THEIR APPLICATIONS IN CLINICAL MICROBIOLOGY

Dept. of Biosciences

2 Mar 2017

A practical workshop consisting of four experiments: Multiple Polymerase Chain Reaction (PCR), ELISA, Dot Blot and LAMP, organized by Dr. Urmil Tuteja, Scientist G, DRDO, Gwalior.

External experts and guests from: Indian Institute of Science

FRONTIERS IN ADVANCED BIOLOGICAL RESEARCH, IMMUNOLOGY AND CLINICAL SCIENCES

Dept. of Biosciences

4 Mar 2017

The workshop highlighted that the boundaries between the different branches of science and distinction between pure sciences and applied sciences have blurred. Experts discussed Microbiomes, Heart Disease, Immunology, Drug Target Identification, Investigation of New Drug, Genomics and Lipid Signalling Cascades in Drosophila.

External experts and guests from: IISc. Bangalore, SSSIHMS, Biocon, Institute of Bioinformatics and Applied Biotechnology and National Centre for Biological Sciences (NCBS)

SYMPOSIUM ON BIG DATA AND ANALYTICS

Dept. of Management & Commerce

9 Mar 2017

A one-day symposium that brought three experts in the field of Big Data, Analytics and Machine Learning.

External experts and guests from: Broadridge Financial Solutions Pvt. Ltd. and Cognizant Technology Solutions

CURRENT RESEARCH PERSPECTIVE AND ADVANCED CONCEPTS IN CHEMISTRY

Dept. of Chemistry

10-12 Mar 2017

The workshop attracted leading experts from many fields to discuss areas varying from materials to drug discovery.

External experts and guests from: DRDO, Raman Research Institute, Center for Cellular and Molecular Biology, Center for Energy Science, IISER, NISER, CSIR, IISc Bangalore, Tata Chemicals Innovation Center, Jyothy institute of Technology, IIT Bombay, etc.



FACULTY PARTICIPATION & ACHIEVEMENTS

FROM DELIVERING KEYNOTE ADDRESSES TO BEING INVITED AS A UNIVERSITY BOARD MEMBER, SSSIHL FACULTY REACHED SEVERAL PERSONAL MILESTONES DURING THE ACADEMIC YEAR 2016/17.

For a full report of all SSSIHL faculty Participation & Achievements in 2016/17, kindly visit sssihl.edu.in

MATHEMATICS & COMPUTER SCIENCE

Prof. V Chandrasekaran

- o Listed for Life Time Achievement in the Marquis Who's Who in the World 2017, USA, a global resource for reliable and comprehensive biographical data.

Dr. Krishna Kiran Vamsi Dasu

- o Selected as a Summer Research Fellow by the Indian Academy of Sciences for the year 2017 in the stream of Mathematical Sciences.

Dr. N Uday Kiran

- o Invited Talk, Recent Advances in Theoretical and Computational Partial Differential Equations (Title: Hyperbolic Operators with Non-Lipschitz Coefficients), Panjab University, Chandigarh, 5 Dec 2016

Sri Darshan Gera

- o Attended a Teacher's Training Programme for Degree Teaching at the Talent Development Centre, IISc, Challakere, Karnataka, 23 Nov to 13 Dec 2016.
- o Attended a two-day workshop on Mathematics Practicals, Bangalore University, 14-15 Jan 2017.

Sri B V K Bharadwaj

- o Attended a National Workshop on Recent Trends in Mathematics, Tata Institute of Social Sciences, Tuljapur, Maharashtra, Aug 2016.

PHYSICS

Dr. Krishna Chaitanya V

- o Invited Lecture: 13th D P Somayaji Memorial Physics Lecture, Organized at Vijayawada, (Title: Femtosecond Laser Micromachining for Bio-medical applications), 16 Nov 2016.
- o Invited Lecture: Expert Lecture: Dept. of Metallurgical and Materials Engineering, (Title: Introduction to Femtosecond laser micromachining and its applications) NITK Surathkal, 12 May 2017.

Prof. S Siva Sankara Sai

- o Invited by Central University of Himachal Pradesh (CUHP) as the member of Board of Studies of School of Physical and Material Sciences, May 2017.
- o Attended the Tenth IEEE International Conference on Advanced Networks and Telecommunication Systems (ANTS), Indian Institute of Science (IISc.), Bangalore, 6-9 Nov 2016.

Mrs. C Prathibha

- o Participated in the prestigious Sakura Youth Exchange Program

by Japan Advanced Institute of Science and Technology (JAIST) and worked on 'doped nano materials for fluoride adsorption' under the supervision of Prof. Matsumi, August 2016.

Sri Muralikrishna Molli

- o Attended the International Conference on Nanoscience and Nanotechnology for Energy Applications (EApp-2016), Sathyabama University, Chennai, 27-29 Jun 2016.
- o Attended the International Conference on Material Science and Technology, St. Thomas College, Pala, Kottayam, Kerala, 5-8 Jun 2016.
- o Attended the 61st DAE Solid State Physics Symposium (DAE SSPS 2016), KIIT University, Bhubaneswar, Odisha, 26-30 Dec 2016.

CHEMISTRY

Dr. A Sunil

- o Received the Young Scientist Award 2016, Aufau International Awards, Aufau Periodicals, Salem, 4 Jun 2016.
- o Successfully completed a twenty-one days residential training program equivalent to UGC refresher course, Degree College Teachers Training Program in Chemistry, Indian Institute of Science Challakere Campus, Kudapura, Karnataka, 23 Nov to 13 Dec 2016.

Dr. (Ms.) Sahida Sharma

- o Successfully completed a twenty-one days residential training program equivalent to a UGC refresher course, Degree College Teachers Training Program in Chemistry, Indian Institute of Science, Challakere Campus, Kudapura, Karnataka, 23 Nov to 13 Dec 2016.

Dr. B Sivakumar

- o Attended the International Conference on Nanoscience and Nanotechnology, Vellore Institute of Technology, VIT, Vellore, India, 19-21 Oct 2016.
- o Attended Bioprocessing India 2016, BPI, Center of Innovative and Applied Bioprocessing (CIAB), Mohali, 15-17 Dec 2016.

Dr. S Prathap Chandran

- o Attended the Inspire faculty monitoring-cum-interaction meet for Chemical and Materials Sciences, KIIT University, Bhubaneswar, Odisha, 16-17 Jan 2017.

BIOSCIENCES

Dr. B S Vijayakumar

- o Invited as a Ph.D. examiner and conducted a Ph.D. defense (viva voce), Bharathiyar University, Coimbatore, Tamil Nadu, 27 Apr 2017.

Dr. (Mrs.) Pallavi C

- o Attended an Introductory Course on Flow Cytometry, Dept. of Biotechnology, Indian Institute of Technology Madras, Chennai, Tamil Nadu, 25-26 May 2017.

Sri P Sujith Kumar

- o Attended a training course on Regenerative medicine, LV Prasad Eye Institute (LVPEI), Hyderabad, Telangana, 24 Jan to 4 Feb 2017.

FOOD & NUTRITIONAL SCIENCES**Dr. (Mrs.) B Andallu**

- o Member of the editorial board of Annals of Phytomedicine, an international, peer-reviewed scientific journal, dedicated to publishing cutting edge research in all areas of phytomedicine. ISSN: 2278-9839x

Mrs. A Sumana

- o Attended a one-day UGC-sponsored National Workshop on Researcher Development Framework for Faculty and Students in Higher Education, IQAC and RDC Government College, Anantapur, Andhra Pradesh, 19 Apr 2017.

Ms. Meera Manikkavachakan

- o Attended a district-level workshop on Smart targeting for Nutrition Mission, Dept. of Women & Child Welfare and UNICEF, Zilla Mahila Samakhya, Anantapur, Andhra Pradesh, 18 Jan 2017.

MANAGEMENT & COMMERCE**Dr. (Miss) N Niranjana**

- o Glory for India Award 2017 by International Publishing House, New Delhi

Dr. Sayee Manohar K

- o Chair Person, 2nd National Seminar on Innovation in HR, Marketing, Information Technology and Finance, Mangalore Institute of Management & Science College, Bangalore, 7 Jan 2017
- o Attended a faculty orientation on Innovative Techniques of Management Teaching, T John Institute of Management & Science (TIMS), Bangalore, 15 Sep 2016.
- o Attended a faculty orientation on Teaching to facilitate teaching, Sundaram Learning (A Division of Sundaram Finance) 12 Oct 2016.
- o Attended a faculty orientation on Advanced Data Analysis for Research, School of Management, Kristu Jayanti College, Bangalore, 29-30 Nov 2016.
- o Attended a workshop on Funding Agencies Research Grant & Proposal Writing, St. Joseph College, Bangalore, 20 Jun 2016.

Prof. (Miss) Ch Radhakumari

- o Excellent Paper Award, International Conference on Recent Trends in Computer Technology and Management for the research paper, Best out of waste: A prototype software solution for fund management using MATLAB-GUI, 23 Oct 2016, Hyderabad.



Dr. (Miss) T R Rajeswari

- Keynote Speaker and Session Chair, Heber International Conference on Applications of Actuarial Science, Mathematics, Management and Computer Science, Trichirapalli, Nov 2016.
- Session Chair, 2nd International Conference on Inclusive Economic Growth & Sustainable Development, SDM Institute for Management Development, Mysore, Karnataka, 18-19 Nov 2016.

Dr. (Mrs.) Swetha Thiruchanuru

- Attended a two-day understudy programme, TVS Way, TVS Motors, Hosur, Tamil Nadu, 27-28 Mar 2017.

Sri S Sai Manohar

- Attended a two-day understudy programme, TVS Way, TVS Motors, Hosur, Tamil Nadu, 27-28 Mar 2017.

Sri L K Prasad Rayaprolu

- Attended a workshop on Funding Agencies Research Grant & Proposal Writing, St. Joseph College, Bangalore, 20 Jun 2016.
- Attended a faculty orientation on Data Analysis for Research, Kristu Jayanti College, Bangalore, 29-30 Jun 2017.
- Attended a faculty orientation on Teaching to facilitation teaching, Sundaram Learning (A Division of Sundaram Finance) 12 Oct 2016.

Sri M S Sai Vinod

- Delivered Master Classes on Human Resources Management and Big Data for the Health Care Sector, IIM-Bangalore, July 2016 and 11 Mar 2017.

Sri B Chandrasekhar

- Attended a faculty orientation on Teaching to facilitation teaching, Sundaram Learning (A Division of Sundaram Finance) 12 Oct 2016.

Dr. Sanjay Mahalingam

- Attended a faculty orientation on Teaching to facilitation teaching, Sundaram Learning (A Division of Sundaram Finance) 12 Oct 2016.

Sri V N Prakash Sharma

- Attended a workshop on Train the Trainers in GST, The Institute of Chartered Accountants of India (ICAI), Chennai, 22-23 Sep 2016.
- Attended the Institute of Company Secretaries of India (ICSI) 1st Global Congruence to Promulgate International Corporate Governance Day, Hyderabad International Convention Centre (HICC), Hyderabad, 8-9 Dec 2016.

ECONOMICS*Dr. R Prabhakar Rao*

- External Observer, Internal Quality Improvement Program, Christ University, Bangalore, 28 Sep 2016.
- Reviewer, American Mathematical Society (An association of professional mathematicians dedicated to the interests of mathematical research and scholarship, and serves the national and international community through its publications, meetings, advocacy and other programmes).
- Reviewer, Journal of Indian Society for Probability and Statistics.

EDUCATION*Prof. (Miss) Madhu Kapani*

- Invited as a Resource Person, National Seminar on Sarvepalli Radhakrishnan- A great philosopher, educationist and statesman, Govt. College Anantapur, Andhra Pradesh.
- Invited as a Resource Person, National Seminar on Impact of Human Values and Professional Ethics on Quality of Higher Education, Government Degree College, Uravakonda, Andhra Pradesh.

SUB-DEPARTMENTS & LANGUAGES*Dr. (Miss) Kiron Bala Arora*

- Delivered the keynote address for Hindi Divas Celebrations at Sri Krishnadevraya University, Anantapur, Sep 2016.
- Invited as a Ph.D. examiner and conducted a Ph.D. defense (viva voce), Dept. of Hindi, Tanta University, Yamuna Nagar, Rajasthan, Mar 2017.

Prof. R Gangadhara Sastry

- Invited Talks at Government Govt. College, Anantapur, Academic year 2016/17.

Dr. N Venkatesha Rao

- Invited as a Resource Person to teach Haribhaktisara of Vadiraja (with special relation to grammar), Bhagavata tatparya and Vaikunta varnam of vadiraja, Poorna Prajna Samshodhana Samsthe, Bangalore, 28 Oct 2016 and 15-20 May 2017.

Dr. (Mrs.) M Praphulla

- Invited as a Resource Person, National Seminar on Vedangas - Vedic studies - New Possibilities, Kadavallur Anyonyaparishad, Kadavallur, Kerala, 12-13 Nov 2016.

NEW FACULTY

- Dr. Praveen Kumar Lavudi, Asst. Professor, Dept. of Mathematics & Computer Science
- Sri Shekhar Nilkandappa Todkar, Asst. Professor, Dept. of Mathematics & Computer Science

STUDENT PARTICIPATION & ACHIEVEMENTS

ORGANIZATIONAL VISITS

At the end of each academic year, final year graduating students from various departments go on official visits to reputed organizations to get a feel of how what they learn in the classroom is applied in the real world. Students are accompanied by a few faculty members on these trips.

During the academic year 2016/17, these included:

Physics

I M.Tech. in Optoelectronics & Communications students, Hyderabad and Bangalore, 16-22 Apr 2017. Organizations visited:

Hyderabad: Laboratories of Prof. Balaji Srinivasan and Prof. Krishna M Sivalingam, Heterogenous, Sundaram Clayton, KLA Tencor and ALERT (NGO specialised in training volunteers to address medical emergencies).

Bangalore: CISCO, Sri Sathya Sai Institute of Higher Medical Sciences (SSSIHMS), Whitefield, Bangalore (IT operations and Maintenance), Tejas Networks Ltd. and ISRO Satellite Center.

Food & Nutritional Sciences

I M.Sc. Food & Nutritional Sciences, II M.Sc. Food Science and Nutrition and II M.Sc. Food Technology students, Bangalore, 14-17 2017. Organizations visited: SSSIHMS, Griffith Foods Private Ltd., Mysore Fruit Products, Bliss Chocolates, Krish Food Technologies Pvt. Ltd., Nilgiris Dairy, Srinidhi Roller Mills Pvt. Ltd., UNIBIC Industries and Vokain Foods.

Management & Commerce

Anantapur Campus: II M.B.A. students, Chennai, 16-20 Apr 2017. Organizations visited: Marigold Hotel, Medha Servo Drives, Mahindra & Mahindra, Green Park Hotel and Care Hospital.

Prasanthi Nilayam Campus: II M.B.A. students, Hyderabad, 17-20 Apr 2017. Organizations visited: Ashok Leyland, Sundaram Clayton LTD, Symrise AG, Butterfly, Renault Nissan and Roca Parryware.

93%

Exams-Pass-Rates

Undergraduate Programmes

95%

Exams-Pass-Rates

*Postgraduate &
Professional Programmes*

PROJECTS & DISSERTATIONS

Listed below are selected topics / areas of postgraduate and professional programme projects and dissertations.

Mathematics & Computer Science

M.Sc. in Mathematics and M.Tech. in Computer Science

Facial Emotion Recognition Using Dynamical System, Intelligent Video Surveillance for Monitoring Elderly in Home Environments, Sentiment Analysis on Twitter Data using Machine Learning Techniques, Image Interpolation, Blockchain-based Big data Solutions, Integrating Anomaly detection strategies into SNORT, Distributed Graph Algorithm on Giraph, Deep Learning using Tensor Flow, A study of Age Invariant Face Recognition

Physics

M.Sc. in Physics, M.Sc. in Materials Science and M.Tech. in Optoelectronics & Communications and Nuclear Medicine

Third order nonlinear Optical properties of doped bismuth titanate compounds, Paper Microfluidics, Interpolation Methods for SPECT Images, Supercapacitor Power Cells Based on Peanut Shell Derived Carbon, Synthesis and Characterization of Yttrium Ferrite Perovskite system towards microwave Absorber, Humidity sensor and photovoltaic applications, Development of Semi-Automatic tool for analysis of Scintigraphic images in Nuclear medicine, GMPLS network element simulator using docker containers, Development of Bluetooth Low energy (BLE) enables 5-lead ECG monitoring device

Chemistry

M.Sc. in Chemistry and M.Tech. in Analytical Methods and Chemical Instrumentation

Synthesis and Characterization of Celecoxib Loaded Mesoporous Silica Nanoparticles and Their Potential Antibacterial Applications A study of inclusion complex formation between cyclodextrin and a few selected drugs, Characterization and Antimalarial study of Diarylidene cyclopentanones, Studies on Lithium intercalated WS₂ and Silver Nanoparticle Decorated Composites with Cellphone-Based Surface Plasmon-Coupled Emission Platform, Cellphone Monitoring of Surface Plasmon-Coupled Emission Enhancements with Ag-Halloysite Architectures

Biosciences

M.Sc. in Biosciences

Phylogenetic analysis of Clinically Isolated MDR. *Acinetobacter baumannii* by Random Amplified Polymorphic DNA, In vitro culture of *Tecoma stans* L. and phytochemical Analysis, Wastewater Treatment using Microbial Fuel Cells, A study on effect of hypoxia on the expression DNA repair proteins, A study on factors affecting biofilm growth

*Food & Nutritional Sciences**M.Sc. in Food & Nutritional Sciences and M.Sc. in Food Technology*

Development of value-added passion fruit (*Passiflora edulis* Sims) product, Formulation and characterization of a frozen dairy dessert, Antioxidant effects of ajwain seeds and oil in the in vitro systems and in human erythrocytes and leukocytes, Development and popularization of millet based products, A study on consumer awareness and acceptability of foods with biocolours

*Management & Commerce**M.B.A.*

Effect of GST on Logistics Sector in India – Aspects and Prospects, A Study on Foreign Exchange Risk Management Practices of Indian MNCs, Impact of Critical Factors on Credit Rating of Select Indian Infrastructure Companies, A Study of Select Indian Startups by Developing VUCA Model, A Stock Return Prediction Model Using the Kernel nearest neighbour Algorithm, Challenges of Digital Payments in Rural India, Study of Consumer Behaviour in Mobile Web usage and Opportunities for Mobile Advertisements in Darjeeling Town Region, Green SMEs: A Critical Analysis of its' Opportunities and Challenges

*Economics**M.A. in Economics*

Determinants of Stock Prices in India: An ARDL Approach, Need and Prospects for Solar Power in India, Determinants of Poverty Reduction in India, Determinants of Indian Exports: An Empirical Investigation of the Agriculture and Services Sectors

NATIONAL EXAMINATIONS

A significant number of SSSIHL final year postgraduate students qualified in national exams such as the GATE/JEST or the CSIR-UGC NET in 2016/17. The list below includes the national rank for each exam.

Varshaneya V (Computer Science)

5834 (GATE)

A V R P Saichand (Computer Science)

8944 (GATE)

Karam Rai (Computer Science)

14012 (GATE)

Rahul Raja Pattar (Mathematics)

217 (GATE) | 154 (CSIR UGC-NET for JRF)

K Sai Manoj (Engineering Sciences)

421 (GATE)

Santosh C R (Physics)

432 (GATE)

Pankaj Kumar (Biosciences)

2 (GATE) | 10 (CSIR UGC-NET for JRF)

C Prasanth (Biosciences)

272 (GATE) | 27 (CSIR UGC-NET for JRF)

Sai Manoj Lingamalla (Biosciences)

95 (GATE) | 40 UGC-NET (LS)

Swaroop (Biosciences)

44 UGC-NET (LS)

V M Datta Darshan (Biosciences)

1311 (GATE)

Bhargava Sai M (Biosciences)

1519 (GATE)

Utkarsh Bele (Biosciences)

2521 (GATE)

Ashrita C Haldipur (Home Science)

UGC-NET (LS)

Suriseti Tejaswi Uma Bharathi (Home Science)

UGC-NET (LS)

Chandrahaas C S (Management)

UGC-NET (LS)

S Sai Krishnan (Management)

UGC-NET (JRF)

Shreyas Nayak (Management)

UGC-NET (LS)

Kamal Saurabh Yadav (Management)

UGC-NET (JRF)

Pogaku Varun Kumar (Management)

UGC-NET (LS)

Pogaku Tharun Kumar (Management)

UGC-NET (JRF)

Challa Lokesh (Management)

UGC-NET (JRF)

Rajiv Gurung (Economics)

UGC-NET (JRF)

Sayel Basel (Economics)

UGC-NET (LS)

GATE Graduate Aptitude Test in Engineering | CSIR (Council of Scientific & Industrial Research) | JRF (Junior Research Fellowship) | NET (National Eligibility Test) | LS (Lectureship)

All ranks are national (All India Rank)

17%

GATE

4%

CSIR UGC-NET for JRF

8%

UGC-NET (LS)

5%

UGC-NET (JRF)

National Examinations

This data pertains to final year postgraduate students who are eligible to write these exams

RESEARCH PROJECTS

SSSIHL CONTINUES TO PURSUE NEEDS-BASED RESEARCH THAT WILL HELP ALLEVIATE PROBLEMS AFFECTING THE POORER SECTIONS OF SOCIETY. DURING THE ACADEMIC YEAR 2016/17, THE TOTAL VALUE OF ONGOING PROJECTS AT THE UNIVERSITY WAS ₹5.82 CRORES.

MATHEMATICS & COMPUTER SCIENCE

Automatic Defense Against Zero Day Polymorphic Worms in Communication Networks using Machine Learning Algorithms

PHYSICS

Design and Development of Small Organ Imaging Gamma Camera System
DST

Multi Modal Microscope: Field Trails (Phase II)
DST-TSDB

FIST (Fund for Improvement of Science & Teaching Infrastructure)
DST

Research Based Reforms in Physics Instruction: Classroom and Laboratory
VGST, DST, Govt. Karnataka

CHEMISTRY

Synthesis of novel Andrographolide derivatives as potential anticancer and antibacterial agents
CSIR

Development and Validation of an indigenous high sensitivity low cost paper based assay for Lp-PLA2 and other cardiac markers to identify Indians at risk for early onset of coronary artery disease
4S Foundation (USA)

Regiospecific Functionalisation of Anisotropic Nanoparticles and Implications Towards Generation of Plasmonic Metal Nanoclusters
DST INSPIRE Faculty Award

BIOSCIENCES

Augmenting Postgraduate Teaching & Research Facilities in Dept. of Biosciences
DST FIST

OMIX research and diagnostic laboratories Pvt. Ltd.
OMIX Research

Bioinformatics Infrastructure Facility (BIF)
DBT

Mechanism of ATP secretion and the role of ATP-activated P2 receptors in the Microglial Inflammatory response: implications for Multiple sclerosis
DBTD



RESEARCH HIGHLIGHTS

TO VIEW THE CURRENT RESEARCH AREAS FOR EACH DEPARTMENT, VISIT SSSIHL.EDU.IN GIVEN BELOW ARE HIGHLIGHTS OF SELECTED RESEARCH WORK AT SSSIHL IN 2016/17.

SCIENCES

DISEASE BIOLOGY: UNDERSTANDING OF EARLY BIOMARKERS OF A VASCULAR NECROSIS OF FEMORAL HEAD (AVNFH)

Avascular necrosis of femoral head is a debilitating bone disorder which occurs as a result of the interruption of blood supply to the femoral head (the hip joint) region. The disease typically affects young and middle-aged male members of the general population. Genetic studies pinpoint the role of genetic alterations associated with the incidence of AVNFH. But there are indeed conflicting results in regard to the association of the disease with genetic alterations. Different omics approaches—namely the genomic, transcriptomic and proteomic approaches—have been used by researchers to elucidate the pathogenesis of AVNFH.

A metabolic approach is by far the most superior approach as it closely resembles the phenotype. Homocysteine is one such metabolite which is an inevitable evil in the one carbon metabolism in humans. Researchers at the Dept. of Biosciences, SSSIHL along with doctors from the Dept. of Orthopaedics, Sri Sathya Sai Institute of Higher Medical Sciences, Prasanthigram, have characterized for the first time, the levels of homocysteine, vitamin B12, vitamin B6 and other such metabolites in the diseased patients belonging to the Indian population. This study showed that metabolites such as homocysteine, adenosine, S adenosyl homocysteine and others were significantly increased in diseased patients. Vitamin B12, B6, betaine and other metabolites were significantly reduced in the diseased population.

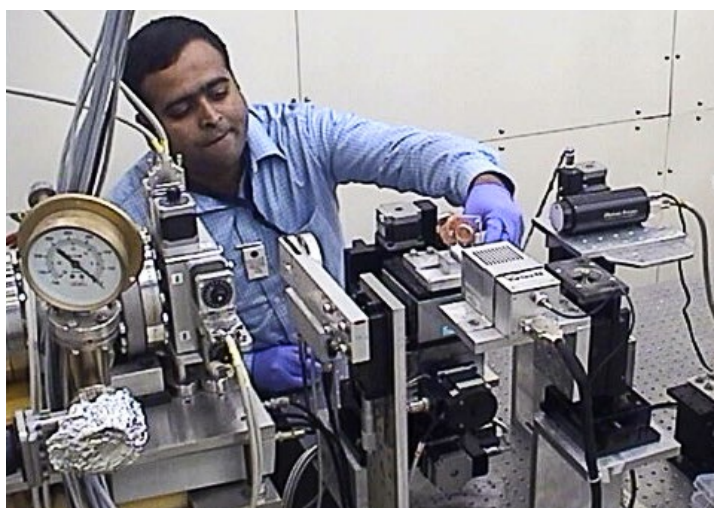
The metabolic alterations discovered in the blood of avascular necrotic patients were also shown to have structural alterations in the bone phenotype. Chemical composition and ultra-structural characterization of bone samples of AVNFH were significantly altered when compared to controls (normal, healthy samples). Bone remodelling was intensely exhibited by the intense osteocalcin staining noticed near the necrotic areas. This study is predicted to lead to possible therapeutic targets which reflect the prognosis of the disease.

TROPICAL MICROGREENS: A VIABLE ANSWER TO MALNUTRITION IN RURAL INDIA

Researchers at the Dept. of Food & Nutritional Sciences, SSSIHL conducted an independent study on ten varieties—including some that have never been explored—of tropical microgreens (which have higher nutritional value than mature vegetables) to address 'hidden hunger' - micronutrient malnutrition, a major nutritional concern in India caused by the deficiency of essential vitamins and minerals.

Tropical microgreens can significantly increase rural and household food and nutritional security. The cultivation of these under semi-arid climate conditions was standardized by the researchers. This can create sustainable initiatives to address the production of microgreens.

Interestingly, roselle microgreens (*Hibiscus sabdariffa* L.), an indigenous leafy vegetable, showed comparatively higher level of vitamin C, lutein and total polyphenols. French basil, radish and



sunflower microgreens also showed good amount of antioxidant phytochemicals. Further, the microgreens also proved to be a better source of vitamin C, total polyphenols and exhibited higher DPPH radical scavenging activity compared to their mature counterparts. ICP-OES based mineral profile indicated microgreens to be good sources of essential elements, particularly zinc and selenium. Preliminary studies indicate these tiny greens to be lower in sodium content and the anti-mineral oxalic acid compared to mature greens.

With its rapid growth cycle, limited space requirement and organic fertilizer input, ease of digestibility and rich flavours, microgreens represent a new format of greens with immense potential as a homestead vegetable production strategy. Women and small scale farmers in the rural-urban continuum could set up their own microgreens gardens/farms as a commercially viable enterprise. This in turn will ensure household food and nutritional security and improve their economic stability.

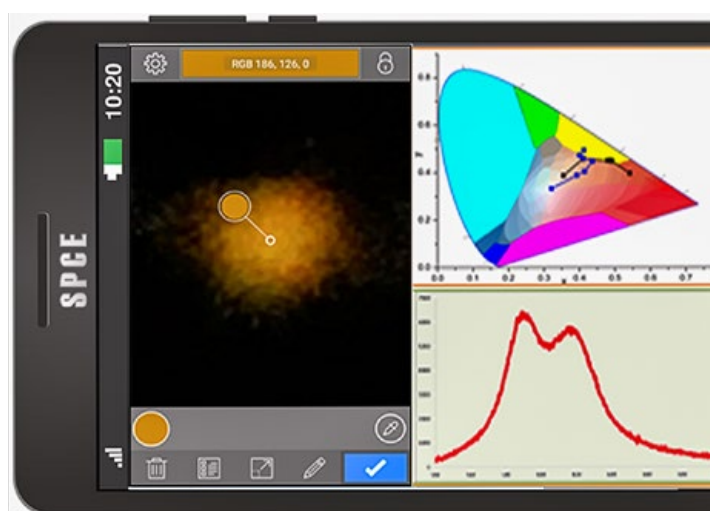
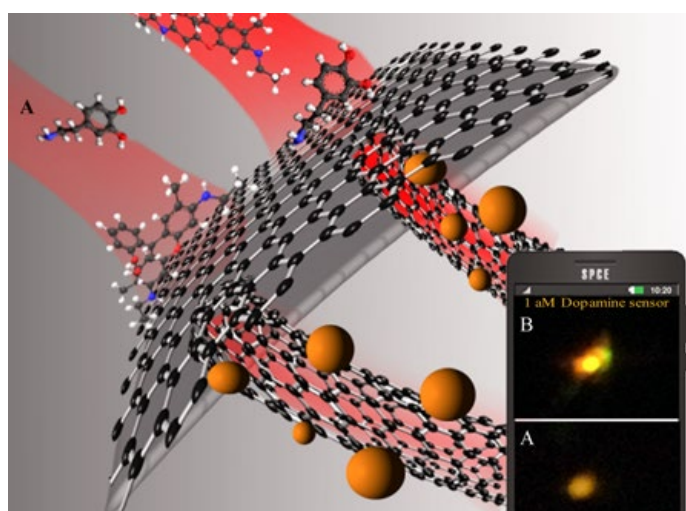
NEXT-GEN PLASMONICS TECHNOLOGY FOR POINT-OF-CARE DIAGNOSTICS

Mobile phones have become ubiquitous in this age of smart technologies. Taking one step forward, mobile phone based sensing technologies have started to gain attention. Much of medical and biological sensing is based on the fluorescence phenomenon. However, the limitations of this technique require modifications towards development of sensing platforms and point-of-care devices. In this regard, research undertaken at the

Plasmonics Laboratory, Dept. of Chemistry, SSSIHL in 2016/17 was focused on overcoming the drawbacks of fluorescence with the use of surface plasmon-coupled emission phenomenon and evolve it as a mobile phone based sensing. We have to an extent accomplished this journey of a home-built platform to a low-cost, mobile phone based next-gen plasmonics technology.

The images shown below present a snippet of the research outcome on development of mobile phone based surface plasmon-coupled emission technology. By trapping a quantum qubit emitter in a nanocavity, the fluorescence was enhanced by 180-fold. This was integrated into the proof-of-concept mobile phone based sensing platform and was tuned to sense of DNA and Dopamine at attomolar concentrations.

Further research in this regard is now being funded by Tata Trusts and the Department of Science and Technology, Govt. of India, towards application of this technology for the development of point-of-care, mobile health diagnostic devices at SSSIHL in collaboration with Sri Sathya Sai General Hospital (SSSGH), Prasanthi Nilayam, Sri Sathya Sai General Hospital (SSSGH), Whitefield, Bangalore and Sri Sathya Sai Institute of Higher Medical Sciences (SSSIHMS), Whitefield, Bangalore.



MANAGEMENT & COMMERCE

DISPARITY IN INCOME DISTRIBUTION AND SCARCITY OF RESOURCES

Research in the area of income distribution included developing a stylized model for creating inclusive strategies for business organizations. Researchers developed an implementable model to enfranchise communities by means of inclusion in their firms' value-chains, either as producers, suppliers, partners, employees, or owners. This will result in higher and stable income for the poor. In addition, research on implementable strategies for Sustainable Development of Rural India focuses on augmenting the income of rural households through skill development (vocational skills or native skills) and implementing various livelihood strategies, which would enable them to be economically strong and sustainable in long run. Also, studies on Micro, Small & Medium Enterprises (MSME) financing have shown that empowering the small empowers the nation's economy.

In the area of scarcity of resources, one study—focusing on water scarcity—has developed a workable model on deciding on the scale of wastewater treatment plants and the mechanism of cost recovery by using the treated plant for farming purposes. Another study on education in the rural sector was conducted to improve the intervention mechanisms; to ensure that high impact is achieved in the education sector and how to leverage technology as an enabler in transforming rural education. Lastly, a study titled, Empowered Women – A Mast for Sustainable Development, Paradigm Shift from Homes to Firms, looked at how empowering first generation women entrepreneurs can create value for the home and the nation.

ECONOMICS & HUMANITIES

MACROECONOMETRIC MODELLING OF THE INDIAN ECONOMY

The major research focus in Economics is Macroeconometric Modelling of the Indian economy. This includes theoretical and empirical issues relevant to macro-modelling and the use of models in forecasting, policy analysis and planning, including validating these models for their relevance and policy implications.

This year, one of the research studies was on econometric modelling of current account balance of India's Balance of Payments. The earlier studies done in this area have either looked at trade flows or services independently. It is important to build a structural model of overall current account in order to derive relevant policy implications.

This study—utilising the available econometric techniques—attempts to analyse the trends, growth rates, composition and the direction of India's exports and imports of goods and services so as to be able to identify the determinants of these flows at aggregate and disaggregate levels. A substantive objective of this study is to work out a structural model for the current account of India's balance of payments. The estimated models are subjected to meaningful simulation exercises in order to bring forth the important policy implications (in areas such as the external sector, financial sector, fiscal and monetary policies).

Inter dynamics among the current account variables and macroeconomic variables is evaluated using the VAR model, Impulse Response Function and Variance Decomposition. Through Struc-



tural Break Analysis and Regime Switching Models the dynamics between Current Account Balance (CAB) and Gross Domestic Product (GDP) is highlighted. The resulting econometric results with their important policy implications turn out to be relevant to understand India's Current Account Balance. The importance of this analysis is clear in view of the highly, globalized system that has prevailed in the world for the last three decades or so and is likely to get stronger in the years ahead.

MEDIA, POPULAR CULTURE, FANTASY FICTION AND LITERARY STUDIES

Research in English Language & Literature this year focused on a range of issues. For example, in the area of media discourse. Everyone knows the influence the media has in a democracy, and the importance of media discourse in shaping public opinion. Papers in this area have been presented at international conferences outside India and received very encouraging feedback.

Another area of study has been culture studies. With popular culture taking an exceedingly important place in the life of the intelligentsia, culture is studied through the lens of historiography. Papers in this area, as also papers dealing with fantasy fiction that have become popular classics, have been presented and published. There are more research papers in this area that are under communication for publication.

Literary studies at the department are particularly different because of the perspective they bring in. Seeing European Drama or Modern Fiction through the lens of Bhagawan Baba's philosophy has received much appreciation.



RESEARCH SCHOLARS PARTICIPATION & ACHIEVEMENTS

PHYSICS

Sri Abhijit B K

- o Attended COMSOL Conference 2016 on Multiphysics simulation, Movenpick Hotel, Bangalore, 20-21 Oct 2016.

Sri Sumukh, Sri Nandan R

- o Attended COMSOL Conference 2016 on Multiphysics simulation, Movenpick Hotel, Bangalore, 20-21 Oct 2016.

II M.Tech. in Optoelectronics & Communications students

- o Attended the IEEE-ANTS (Advanced Networks and Telecommunications Systems) Conference, Indian Institute of Science, Bangalore, 6-9 Nov 2016. They presented three research papers at the conference.

BIOSCIENCES

Sri Kottapalli K Jayant, Sri Skanda S

- o Poster Presentation on Studies on biodiversity of microfungi from soils of Puttaparthi, Andhra Pradesh, 9th NABS National Conference on New Biological Approaches and Challenges for Sustainable Development, Madurai Kamaraj University, Madurai, Tamil Nadu, 11-12 Aug 2016.

Sri Kottapalli K Jayant

- o Training on Diabetes Research, Madras Diabetic Research Foundation (MDRF), Chennai, Tamil Nadu, 4-5 May 2017.
- o Training on Chromatography Techniques, Department of Biotechnology, Indian Institute of Technology (IIT) Madras, Chennai, Tamil Nadu, 7-14 May 2017.
- o Attended the 9th NABS National Conference on New Biological Approaches and Challenges for Sustainable Development, Madurai Kamaraj University, Madurai, Tamil Nadu, 11-12 Aug 2016.

Sri Aiyer Kartik Satyanarayan

- o Attended the 9th NABS National Conference on New Biological Approaches and Challenges for Sustainable Development, Madurai Kamaraj University, Madurai, Tamil Nadu, 11-12 Aug 2016.

MANAGEMENT & COMMERCE

Sri G Aditya

- o Third prize for the Poster presentation on Sentiment Analysis on Indian stock market using Tweets at the Max Planck-Tapmi Winter School on Bounded Rationality, TAMPI Campus, Manipal, 9-15 Jan 2017.

Sri K J Srinivas

- o Attended the International Conference on Sustainability, Learning, Living and Leading, Indian Institute of Management (IIM) Shillong Meghalaya, 2-4 Mar 2017.



RESEARCH PUBLICATIONS

MATHEMATICS & COMPUTER SCIENCE

Journal Papers

Srinath M Seshadri and Chandrasekaran V, Isogeny-based Quantum Resistant Undeniable Blind Signature Scheme, *International Journal of Network Security* (2017).

K S Sridharan, M Ramya, V Krishnaven, Certain Investigations on IRIS Recognition using Hybrid Approach of Fourier Transform and Bernstein Polynomials, *Pattern Recognition Letters*, 94,154-162 (2017).

Y Lakshmi Naidu, C R Saranya, Paired Neighbourhood set on Interval Graphs, *International Journal of Pure & Engineering Mathematics*, 4, 21-26 (2016).

K Chaitanya, Pavan Tanay, K Yogesh Murthy, P D Kartheek, and Baruah P K, GPU Accelerated Image Segmentation using Cascaded Hierarchical Models, *International Journal of Engineering Science (IJESC)*, 6, 3687-3691 (2016).

Ramesh Sharma, S Balasubramanian, N Uday Kiran, Some Remarks on Ricci Solitons, *Journal of Geometry* (2017).

K Chaitanya, Pavan Tanay K, Srikanth Khanna, Chandrasekaran V, Baruah P K, Kartheek Diwakar Pingali, Sai Hareesh Anamandra, GPU Accelerated Video Super Resolution Using Transformed Spatio-temporal Exemplars, *International Journal of Grid and Utility Computing* (2017).

Srinivasu P D N, Vamsi D K K, Aditya, Biological Conservation of Living Systems by Providing Additional Food Supplements in the Presence of Inhibitory Effect: A Theoretical Study Using Predator-Prey Models, *Differential Equations and Dynamical Systems* (2017). DOI: 10.1007/s12591-016-0344-4

Neeraja Ch, Gopal H K, Prasada Rao D R V and Sree Ranga Vani K, Effect of Chemical Reaction, Radiation and Radiation Absorption on an Unsteady Convective Heat and Mass Transfer Flow of a Viscous Fluid in a Vertical Wavy Channel with Oscillatory Flux and Heat Sources, *Advances in Applied Science Research*, 7(3), 127-141 (2016).

Conference Papers

K Chaitanya, Pavan Tanay, Srikanth Khanna, Chandrasekaran V, Baruah P K, Single

Image Super Resolution using Transformed Self-Exemplars: A Heterogeneous Parallel Computing Approach, *IEEE International Conference on High Performance Computing (HiPC-2016)* Hyderabad, India.

K Chaitanya, Pavan Tanay, Srikanth Khanna, Chandrasekaran V and Baruah P K, GPU Accelerated Video Super Resolution Using Very Deep Convolutional Networks, *GPU Technology Conference* (6 Dec 2016) Mumbai, India.

K Chaitanya, Pavan Tanay, P D Kartheek, Baruah P K, Srikanth Khanna and Chandrasekaran V, Heterogeneous Parallel Implementation of Single Image Super Resolution using Transformed Self-Exemplars on Multicore & TitanX GPU, *Parallel, Distributed and Grid Computing (PDGC), 2016 Fourth International Conference* (22-24 Dec 2016) Jaypee University of Information Technology, Waknaghat, Solan, Himachal Pradesh, India.

Ch Bhaskar Vishnu Vardhan and Baruah P K, Improving the Performance of Heterogeneous Hadoop Cluster, *IEEE PDGC-Parallel, Distributed and Grid Computing (PDGC), 2016 Fourth International Conference* (22-24 Dec 2016) Jaypee University of Information Technology, Waknaghat, Solan, Himachal Pradesh, India, pp.225-230.

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SPECIAL ANNUAL EVENTS

THERE ARE FIVE SPECIAL ANNUAL EVENTS THAT RELATE TO THE DEVOTIONAL, CULTURAL, PHYSICAL AND SERVICE DIMENSIONS OF SRI SATHYA SAI VALUES-BASED INTEGRAL EDUCATION. THEY ARE ORCHESTRATED TO BRING OUT THE LATENT VALUES AND GOOD QUALITIES IN STUDENTS AND TEACHERS. A LOT OF PLANNING AND EFFORT GOES INTO EACH OF THESE EVENTS. ALL STUDENTS PARTICIPATE IN THESE EVENTS IN ACCORDANCE WITH THEIR INDIVIDUAL SKILLS AND TALENTS.

SUMMER COURSE IN INDIAN CULTURE & SPIRITUALITY

17-19 June 2016

Spiritual education is not a distinct and separate discipline. It is part and parcel of all types and levels of education. In fact, it is the very foundation on which a lasting edifice can be built. Secular and spiritual education are like the two halves in the seeds of pulses – the germ that sprouts in-between is fed by both.

Sri Sathya Sai Baba
Sanathana Sarathi, September 1975

Sri Sathya Sai Institute of Higher Learning held its annual Summer Course in Indian Culture & Spirituality at Prasanthi Nilayam, Andhra Pradesh between 17 and 19 June 2016. The event serves as an induction programme to all students and teachers of with an objective to expose students of the university to the rich cultural and spiritual heritage of Bharat. It orients students into Bhagawan Baba's educational philosophy and gives them deep, first hand insights into how they can directly benefit from this unique institution.

The central theme of this year's event was Bhaja Govindam—based on the composition of Adi Shankaracharya—and the programme focused on the lessons learnt from two particular discourses of Sri Sathya Sai Baba in 1973 - From Ignorance to Liberation and Seek the Company of Good People.

The morning sessions comprised of talks by external guests, a quiz on Bhagawan Baba's teachings, and Panel discussions on the divine love of Bhagawan Baba and the life lessons students learnt in His company.

The evening sessions, in the Sai Kulwant Hall, saw creative talks by students across the campuses of the university on topics such as Lessons from the Ramayana, SAI – See Always Inside, and lessons from other scriptures. Musical presentations, such as the one from students of the Sathya Sai Mirpuri College of Music on the last day of the event, and bhajans during the evening sessions were also a highlight of the event.

The post-dinner *paranayam* sessions consisted of invited speakers—typically alumni and senior teachers of the university—sharing their unique and divine experiences in the physical presence of the Revered Founder Chancellor the university, Bhagawan Sri Sathya Sai Baba.

The event concluded on Saturday, 19 June 2016 with a sumptuous lunch arranged for all attendees, after which students and faculty travelled back to their respective campuses.

PRASANTHI VIDWAN MAHASABHA

5-11 October 2016

Dasara or Navaratri is a ten-day festival, usually falling in the month of October, and is celebrated all over India in the worship



of the Divine as the Mother principle. Since the early sixties, the festival of Dasara in Prasanthi Nilayam has been closely associated with the *Veda Purusha Saptaha Jnana Yagna*. This *yagnam* is a week-long worship conducted in the Divine Presence in the Poornachandra Auditorium in Prasanthi Nilayam each year for the welfare of the whole world. The *yagnam* commences on the fourth day of Dasara and concludes with the *Poornahuti* – the final oblation that is offered on Vijayadasami, the tenth day.

The evening programmes during the seven days of the *yagnam* are held in Sai Kulwant Hall, under the auspices of the 'Prasanthi Vidwan Mahasabha', where many speakers—primarily students and functionaries of Bhagawan's educational institutions—address the gathering on topics concerning spirituality and philosophy, Bhagawan's teachings and experiences of devotees.

The topics for Prasanthi Vidwan Mahasabha 2016 were: The Resonance of Love, Experiences with Swami after Mahasamadhi, Bhagawan Baba - Avatar of the age, Veda Purusha Saptaha Jnana Yagna, Darshanam, Sparshanam and Sambhashanam, Transformation - The Role of the Divine.

SRI SATHYA SAI GRAMA SEVA

3-11 October 2016

Grama Seva took place from 3 to 11 October 2016. Students and teachers of the University served a population of almost 3,00,000 people in 153 villages over the nine day period. This included the distribution of 46,260 *sarees*, 42,305 *dhotis* and almost 3 lakh food packets and *ladoos*.

The service activity is part of the university curriculum for all students. The university students, research scholars and teachers largely managed the entire project—the planning, resourcing,

organizing and implementation—from start to finish. This included:

- Planning
- Food Preparation
- Packing
- Logistics
- Serving

Impact of Grama Seva

The Revered Founder Chancellor, when initiating this project in the year 2000, stressed that the greatest beneficiaries are not the villagers, but the students. What impact does Grama Seva have on students and villagers?

On Students

- It inspires students to live their lives along a higher ideal
- It sensitizes them to the problems of our society, to rural life and the needs of lesser privileged sections of the community
- It trains students to work in teams and groups under constraints of time and resources
- It enables them to appreciate the joy associated with service

On Village Folk

- It kindles hope in their hearts, reinforcing their faith in the truth that God will take care of them
- It inspires them. The *prasadam* distributed after *nagarsankirtan* and *bhajans* is symbolic of Bhagawan Baba's Divine love, compassion and grace, and of His assurance of protection
- It provides them with food and clothes at the physical level, hope and faith at the mental level and bliss at the spiritual level



ANNUAL CONVOCATION

22 November 2016

Sri Sathya Sai Institute of Higher Learning (Deemed to be University) held its 35th Annual Convocation at Sai Kulwant Hall, Prasanthi Nilayam in the Divine Presence at 10:30 a.m. As the University turned thirty-five, the event was a testimony of how the education model based on values-based education at the university level has stood the test of time and continues to thrive.

The chief guest of the 35th Annual Convocation was Dr. R Chidambaram, Principal Scientific Adviser to the Govt. of India and Homi Bhabha Professor - Department of Atomic Energy. Dr. Chidambaram is a highly decorated Physicist who has served in the best interests of the country for several decades. He is best known for playing an integral role in India's nuclear weapons program. He coordinated the test preparation for the Pokhran-I (1975) and Pokhran-II (1998).

The format, planning and execution of the SSSIHL convocation ceremony is second to none. The ceremonial procession was led by the university brass band, two students carrying the University Standards on either side of the Registrar (who carried the Ceremonial Mace). Other members of the procession included the Chancellor, Vice-Chancellor, Deans and the Heads of Departments along with the Chief Guest, members of the Sri Sathya Sai Central Trust and the Board of Management.

Following the invocatory *veda* chanting, the Vice-Chancellor, Prof. K B R Varma prayed to the Revered Founder Chancellor to declare the convocation open. The Convocation was then declared open in the Divine voice of Bhagawan Baba.

The programme included speeches by the Vice-Chancellor, the chief guest and the Revered Founder Chancellor (broadcast of a previous Convocation Discourse).

Following this, 498 candidates for the various programmes of study were admitted to their various degrees (undergraduate, postgraduate and professional programmes as well as 28 Gold Medallists, and ten Ph.D. awardees) by the Honourable Chancellor, Justice M N Venkatachaliah, former Chief Justice of India.

Annual Convocation Drama

The evening session consisted of the Annual Convocation Drama, performed by the students of the university.

The notion that faith comes first and only then experience, was beautifully highlighted in this year's convocation drama, *Rang-e-mohabbat* (The Colour of Love). The story focused on the journey of perseverance of Vijay, a smart, brilliant and ambitious child from a small town who dreams big. The story highlights the different colours of love that life throws at Vijay and how—eventually—all the dots connect. The drama unfolds the unique transformation of Vijay from an arrogant and ambitious graduate to a devoted and humble young man. A transformation that only the Love of Sai can bring about.

All-Round Gold Medallists

Ayushi Kapoor

Anantapur Campus - Bachelor of Business Management

Devjeet Auddy

Prasanthi Nilayam Campus - Master of Arts (Economics)

Manasali Sai Kumar

Brindavan Campus - III B.Sc. (Hons.) in Chemistry

Vinayak Narayanankumar

Muddenahalli Campus - Bachelor of Business Management



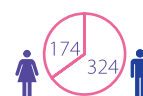
Gold Medallists

Krishnapriya M	Bachelor of Arts
Adithi R Upadhya	Bachelor of Science (Honours) in Physics
KV Seetarama Mani Chandrika	Bachelor of Science (Honours) in Chemistry
Kotha Hridhay Keerthana	Bachelor of Science (Home Science)
Sai Harini N	Bachelor of Commerce (Honours)
Sangrakhi Ghosh	Bachelor of Business Management
Krithika Lakshmi C	Master of Arts in English Language and Literature
Gayathri S	Master of Science in Food Science and Nutrition
Munthala Sainirupama	Master of Science in Food Technology
Sai Sudha N	Master of Business Administration
Yougal Chettri	Bachelor of Arts (Honours) in Economics
Turlapaty Sai Harish Kumar	Bachelor of Science (Honours) in Economics
Ayyagari Ranga Shaarad	Bachelor of Science (Honours) in Mathematics
R Sai Naveen	Bachelor of Science (Honours) in Biosciences
Parab Prashant Mehl	Master of Arts in Economics
Potti Krishna Prasanth	Master of Science in Mathematics Specialization in Computer Science
Adhitya Sekhar	Master of Science in Physics Specialization in Nuclear Physics
Balaram Khamari	Master of Science in Biosciences Specialization in Biotechnology
Karthik Ramakrishnan S	Master of Financial Management
Daksh Seth	Master of Business Administration in Finance
Bennabhaktula Guru Swaroop	Master of Technology in Computer Science
Shreesha Rao D S	Master of Technology in Optoelectronics and Communications
M Chaithanya Theja	Master of Technology in Nuclear Medicine
Nagaraju Dhulipalla	Integrated Master of Computer Applications

Ph.D. Awardees

Sai Hareesh A - Computer Science <i>Novel Local Descriptors for Texture Analysis, Motion Estimation and Image inpainting</i>
Mulpur Pradyumna - Physics <i>Engineered Nano Spacer Layer based Thin Film Architectures for Enhanced Surface Plasmon Coupled Emission Enabled Biochemical and Biomedical Sensing</i>
Sandeep Patnaik - Physics <i>Novel Nanoformulations for Enhanced Oral Bioavailability of Some Poorly Water Soluble Non-Steroidal Anti-Inflammatory Drugs</i>
Ch L Adinarayana Avinash – Physics <i>Development of Novel Fluorescent Nanoparticles based Diagnostic Assay for the Early, Rapid and Accurate Detection of HIV Infection</i>
R S Sai Siddhardha – Chemistry <i>Nanomaterials for Catalytic & Electrocatalytic Applications</i>
Sai Giridhar Sarma Kandanur – Chemistry <i>Discovery of New C-12-Substituted-14-deoxy-Andrographolide Derivatives as Potent Anti-Cancer Agents</i>
S Venkatesh – Chemistry <i>Neoteric Advancements in Surface Plasmon-Coupled Emission Platform</i>
Iyer Shobha Ramamurthy – Food Science & Nutrition <i>Phytochemical and Therapeutic Evaluation of Aniseeds (<i>Pimpinella anisum</i> L.)</i>
Chandrasekhar B – Management <i>A Study on Micro-savings and Saving Behavior of the Poor: Hurdles and Opportunities</i>
Amey Deshpande – Management <i>Enterprise Performance Measurement Systems in Small and Medium Sized Enterprises - Model Development</i>

498
Graduates



24
Gold Medallists



10
Ph.D
Ph.Ds awarded

ANNUAL SPORTS & CULTURAL MEET

11-15 January 2017

Why do all the Sai educational institutions at Prasanthi Nilayam have an elaborate Annual Sports & Cultural Meet every year? The singular focus of all Sai students for the Annual Sports & Cultural Meet has always been to please Swami and make Him proud. On the other hand, Swami—with His divine vision—made sure that these pure feelings of Love were translated into the pursuit of excellence in every facet of a student's evolution.

One of the foremost of these facets is developing Self Confidence. From concept to performance, each event brings home challenges that seem unsurpassable at first; but with dedication, teamwork and facing fears and doubts, they culminate into outstanding performances.

The other amazing aspect of Sports Meet is thriftiness. With meagre resources, students put together props that are beautiful, often with recycled materials. This brings to the fore not just creative energy and original ideas, but also a sense of unity as you must work with one another to achieve excellence in a limited amount of time under immense pressure.

The fact that the Sports Meet has 100% participation from teachers and students is an amazing feat, unparalleled in the field of education. This fact also encourages the cultivation of discipline. If one student is late for practice, the entire team is held up.

In this manner, slowly, over the years, Swami evolved the culture behind the scenes of the Annual Sports & Cultural Meet to put in effect all the underlying principles of Sri Sathya Sai Values-based Integral Education for students and teachers.

Perhaps as He always said, The End of Culture is Perfection.

Sports Meet

11 January

Anantapur, Brindavan, Prasanthi Nilayam and Muddenahalli Campuses presentations:

Rythmic Yoga, Pattern Striders, Sai Rangers, Yobics, Dexters, Skyrunners, Impavidos, Punjabi Gabrus, Light Fantasy, Martial Arts, High Flyers, Torch Drill and LED & Fire Poi.

Cultural Meet

12-15 January

- Video Presentation entitled '*Sai'ward: Through Sai's Words* by the students of Anantapur Campus
- Drama presentation entitled *Darshan – The true vision* by the students of Muddenahalli campus
- Drama presentation on *The life of Sant Surdas* by the students of Brindavan campus
- Drama presentation entitled *Bhakti Pravaham – A journey to the Divine* by the students of Prasanthi Nilayam campus

Prize Distribution Ceremony

15 January

The Prize Distribution Ceremony marked the end of the Annual Sports and Cultural Meet for the academic year 2016/17. It consisted of speeches and giving away the cups and prizes to the students of all Sai educational institutions that excelled in individual and team events for sports, cultural and fine arts at their respective establishments. It included brief speeches by a teacher of SSSIHL and several students highlighting the significance of the event.



Athletics Champions

Devika S
Postgraduate, Anantapur Campus

Priyanka Antil
Undergraduate, Anantapur Campus

Santhosh Basappa Nagouda
Postgraduate, Prasanthi Nilayam Campus

Thota Sujendra
Undergraduate, Prasanthi Nilayam Campus

Praveen Kumar Reddy G
Brindavan Campus

Krishnapuram Anil Kumar
Muddenahalli Campus

Cultural Champions

Aswathy Suresh Babu
Undergraduate, Anantapur Campus

Sourabh Kumar Pramanik
Postgraduate, Prasanthi Nilayam Campus

Sai Shravan N
Undergraduate, Prasanthi Nilayam Campus

Sashank S
Brindavan Campus

M Adithya Krishna
Muddenahalli Campus

Fine Arts Champions

Kotha Hridhay Keerthana
Postgraduate, Anantapur Campus

Sumani Rai
Undergraduate, Anantapur Campus



OTHER INTEGRAL EDUCATION ACTIVITIES

ALL STUDENTS AT SSSIHL SPEND 60% OF THEIR TIME AT UNIVERSITY ON INTELLECTUAL ACTIVITIES (PRIMARILY ON THEIR STUDIES). THE REST OF THE 40% OF TIME IS SPENT ALMOST EQUALLY ON ACTIVITIES RELATED TO THE INTEGRAL EDUCATION DIMENSIONS OF DEVOTIONAL, CULTURAL, PHYSICAL AND SERVICE. THESE ARE HIGHLIGHTED BELOW.

DEVOTIONAL DIMENSION

- o **Bhajans (Sankirtan)**
- o **Vedic** chants and **stotrams**
- o Meditation & Silent sitting
- o **Suprabhatam** (prayer at dawn)
- o Assembly (college prayer)
- o **Brahmarpanam** (food prayer)
- o **Kshama Prarthana** (night prayer)

The activities of the devotional dimension enable a student to connect to his/her Divine inner Self. This inner connection opens the heart and brings forth the feeling of love, compassion and empathy for fellow human beings.

CULTURAL DIMENSION

- o Celebration of festivals:
 - o Eid-al-Fitr, Independence Day,
 - o Sri Krishna Janamashtami (cow procession), Ganesh Chaturthi,
 - o Ganesh Immersion, Christmas
 - o Ugadi, Sri Ramanavami, etc.
- o Brass Band
- o Nadaswaram & Panchavadyam ensemble
- o Annual Sports & Cultural Meet
- o Performing Arts: Music programmes,
- o Drama & Dance
- o Fine Arts: Rangoli, Card making,
- o Photography, Altar making
- o Public Speaking
- o Debates and Elocution

From the performing arts to public speaking to the fine arts, the cultural dimension is designed to give students wide opportunities to find an avenue to their individual artistic expression.

The university makes every effort to provide the best possible resources—both material and human—so that students excel at their chosen activity.

Festivals of major world religions are celebrated, reinforcing the unity among all faiths. Every student is involved in one way or another in the celebration of these festivals.

PHYSICAL DIMENSION

- o Sports
- o Games
- o Jogging
- o Exercises and Yogasanas
- o Annual Sports & Cultural Meet

Sports and games are a part of the daily routine of all students. From yoga classes to fitness training, from team sports to individual sports, students are encouraged to overcome their limitations and excel in these activities.

The university has excellent sports facilities.

SERVICE DIMENSION

- o Self-Reliance departments:
 - o Electricals, Plumbing (water supply),
 - o Audiovisual, General store, Dispensary
 - o Dietary services, Hostel mess, Arts & Crafts, costumes & props, etc.



- o Community living
- o Social Work
- o Voluntary work
- o Grama Seva (Annual Village Service)
- o Prasadam Distribution

The philosophy of service at SSSIHL is based on the concept that divinity pervades all of humanity, and hence when you serve others, you are serving the Divine. Students learn to serve without expecting anything in return, other than the deep inner satisfaction of serving others.

The compulsory residential system, where students live in dormitory-styled accommodation with other students from totally different backgrounds (for a minimum of two years and up to five or more years), provides an excellent foundation for the service dimension.

INTELLECTUAL DIMENSION

Apart from academics and research, the activities in this dimension include:

Awareness Courses

These mandatory courses are designed to cultivate a broad view of the human condition in students. The course content (e.g. the Unity of Religions and Faiths, Study of the Indian Epics, etc.) helps trigger self-reflection and enquiry and sensitises students to the concerns of society, and gets them to think about practical solutions to these problems.

Thursday Moral Class

At each campus, Thursday mornings begin with an hour of inspiring and ennobling talks by speakers focusing on their personal spiritual experiences, messages from sacred scriptures and other elevated and socially relevant themes. It is also used to highlight students' talents in music, dramatics, elocution, debates, quizzes, etc.

In 2016/17, topics included: Eternal Values and Sanskrit Language, *Yogaha Karmasu Kowshalam*, *Ramo Vighrahaan Dharmah*, Science & Technology for Especially abled persons, etc.

Prayer Talks

Every morning before classes commence at the college, all students and teachers gather for the morning assembly. Prayers/ *veda* chanting/*bhajans* and a few minutes of silent sitting are sometimes followed by a talk by students, faculty members or invited guests on topics related to morals and values.

In 2016/17, topics included: A Gift for Life, use it or Lose it, Faith, Clarity, Fear - Challenge it, Deserve before Desire, God's Delays are not His Denials, Adversity, Connection with Swami, Parents and Acceptance, *Bhagawata Saptaha*, Dreams, etc.



COMMUNITY SERVICE

ON THEIR OWN VOLITION, STUDENTS AND TEACHERS OF THE UNIVERSITY WORK WITH LOCAL COMMUNITIES AROUND THE CAMPUSES THROUGHOUT THE YEAR. MANY OF THESE SERVICE ACTIVITIES ARE INSPIRED BY STUDENTS THEMSELVES. THEY ARE A REFLECTION OF THE IMPACT OF THE UNIQUE EDUCATION THEY RECEIVE HERE. EXAMPLES OF THESE FROM 2016/17 INCLUDE:

NARAYANA SEVA

Anantapur Campus, every month

As per the tradition of the campus for the past several years, regular Narayana Seva was undertaken on a monthly basis during the academic year 2016/17.

The activity includes the preparation of 25 Kg. of Pulihora rice by the campus workers. Once cooked, students then pack the Pulihora into packets of around 250-300 grams each. An average of 270-300 packets are prepared each Narayana Seva. These are arranged in crates which are then loaded onto the hostel auto rickshaw.

Usually, four students accompanied by a faculty member or a doctoral research scholar distribute the rice in the slums around town. This allows students to experience first hand, the conditions of people with marginal resources and fills their hearts with an urge to continue to do such work to derive selfless joy, which seva alone can grant them.

LEPER COLONY ADOPTION

Anantapur Campus, 1986 to date

The campus warden, with the help of students and alumni, has adopted a leper colony since 1986 with a long-term objective of making the families as self-sufficient as possible.

Love Stream has helped transform the lives of twenty-five socially marginalized families through dedicated love and care. The families are financially self-sufficient through a series of interventions including raising capital for water pumps, growing trees, selling their fruits, etc.

This year, the talented and skilled children of the colony made various handicrafts like birthday and new years cards, bookmarks, *rakhis*, pouches and friendship bands during their free time. They are then sold

to other students who wait to buy them as they are cheaper, available at hand and prepared by their friends to benefit the poor lepers and are beautiful.

CELEBRATING CHRISTMAS WITH VILLAGE CHILDREN

Muddenahalli Campus, Christmas 2016

The students of the campus went as Good Samaritans on Christmas morning and handed over little gifts to the tiny tots at a nearby Muddenahalli village. This happened towards the end of the candle light *nagar sankeertan* that wound its way from the campus into the village. Seeing the joy of pure innocence with large on the faces of the children was a happy experience for all the students.

OLD AGE HOME VISIT

Muddenahalli Campus, April 2016

Like the past few years, the students of all classes along with staff, visited the Sai Dwarakamayee Vriddhashrama, an old age home housing about forty residents—old men and women—at Sultanpet, Nandi village, about four kilometres from Muddenahalli.

The visits were scheduled once a month. Students understood the importance of respecting elders and giving love and care to parents. They conducted bhajans and *vedam* chanting before commencing their interaction with the residents.



SAI BANDHAN, A BOND OF LOVE

Brindavan Campus, April-May 2017

The Sai Bandhan domiciliary outreach program is a collaboration between students of Brindavan Campus, SSSIHL and Sri Sathya Sai Institute of Higher Medical Sciences (SSSIHMS), Whitefield, Bangalore.

During their summer vacation, students voluntarily set out to meet patients who had been previously treated at SSSIHMS, Whitefield. The objective was to assure the patients and their families of Sai's continued concern for their well-being and get feedback about their experience at SSSIHMS.

In 2017, the third year of the program, as many as 86 students from 64 districts volunteered to visit 200-odd patients across fifteen states and a union territory. The patients visited belonged to different sections of society. They were of diverse caste, creed, religion, age groups and economic strata.

All patient information was provided by SSSIHMS and the logistical support to meet them was extended by members of Sri Sathya Sai Seva organisation in the state concerned.

Students were able to experience, first hand, the love that the patients and their families have for Bhagawan Baba. From a bleak future, Bhaga-

wan had turned around their lives and made them look forward to a happy and healthy future.

The Sai Bandhan program reminded students that the world is one big family and instilled in them the feeling of brotherhood of man and the fatherhood of God. This message was brought home movingly to one student when the family of a patient he had visited during the holidays came all the way to Brindavan to meet him in the hostel in the month of June 2017. Truly, his holidays were holy days!

THOLUVABETTA VILLAGE SERVICE

Brindavan Campus, 16-17 April 2017

A group of thirty students of the I and II year undergraduate and I year postgraduate programmes took up this service activity.

Several activities were undertaken. For example, Sai Deep, a device using a soda bottle and chlorinated water sealed in it to refract sunlight into the dark rooms of the tiled houses of the villagers. These solar water bulbs can transmit enough light as a 40- to 60-watt incandescent bulb to the interior of village homes and can last up to five years.

Other seva activities included giving away health kits, daily essentials and stationery for the school children. In addition to this, students painted their roofs and the school building.



THE END OF EDUCATION IS CHARACTER
Sri Sathya Sai Baba



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