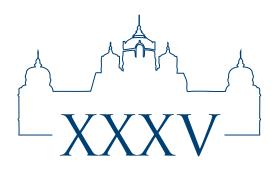


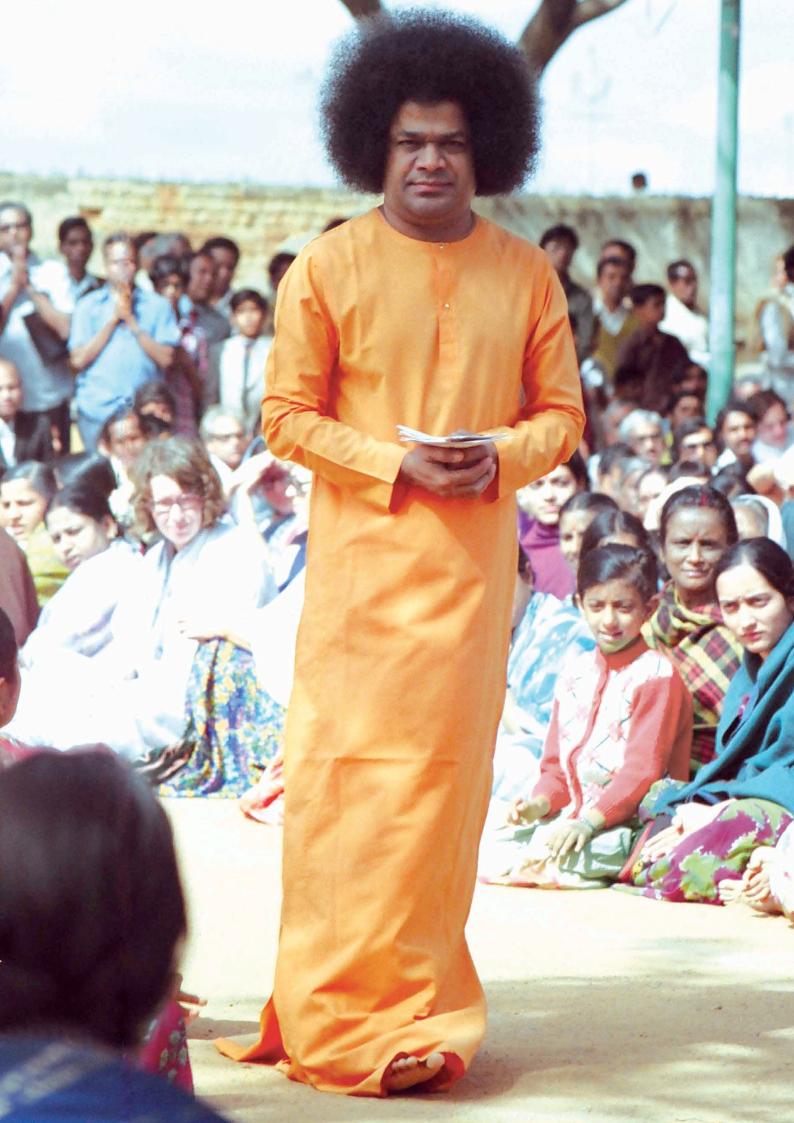
Annual Report 2016





Students! 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 educations are like the two halves in the seeds of pulses; the germ that sprouts is in between; it is fed by both.

Sri Sathya Sai Baba Revered Founder Chancellor, SSSIHL



CONTENTS

Annual Report 2016

1 June 2015 to 31 May 2016

Introduction

- 4 Introduction to SSSIHL
- 8 University Governance & Structure

Academics

- **16** Academic Workshops & Conferences
- 19 New Programmes & New Faculty
- 20 Student Activities & Achievements
- 22 Faculty Activities & Achievements

Research

- 25 Research Projects & Interdisciplinary Science Colloquium
- **26** Research Highlights
- 28 Research Scholars Activities & Achievements
- 29 Research Publications

Other Events & Activities

- **41** Special Annual Events
- **46** Other Integral Education Activities
- **48** Community Service



FOREWORD

As the Vice-Chancellor of this hallowed university, I have had the privilege of facilitating Sri Sathya Sai Institute of Higher Learning in working towards accomplishing the goals outlined in our yearly academic plan for 2015/16, in keeping with the university's vision.

As envisaged by Bhagawan Sri Sathya Sai Baba, Sri Sathya Sai Institute of Higher Learning continues to excel in its commitment to teaching, learning and research as well as moulding young and vibrant minds along the spiritual path. The prevailing student diversity at the university demonstrates our steadfast commitment to providing admissions to all sections of society.

Our low acceptance rates in the past few years—only one in five qualified applicants on an average are admitted—has led to a steady growth in the academic environment of the university. We have also recruited twelve bright faculty members last year, in line with the commitment to maintain the student-teacher ratio at 8:1, one of the best in our country. This fosters an ideal environment for a distinctive kind of student-teacher interaction that allows students to make the best of this unique system of integral education at the university.

Over a hundred visiting faculty and guest lecturers from top-notch universities and organizations, both from within our country and overseas, took pride in being associated with Sri Sathya Sai Institute of Higher Learning.

The university conducted several

national and international workshops and conferences during the academic year in order to provide an opportunity to our students to engage with leading minds and gain an exposure to front-line concepts in their respective academic and research areas.

The effect of this is strongly reflected in the overall academic performance of our students. Over a fifth of all final year postgraduate students qualified in national examinations such as the GATE/JEST and CSIR-UGC NET.

In continuation to the process of consolidation of academic programmes, the Department of Home Science has been rechristened as Department of Food & Nutritional Sciences. Subsequently, Bachelors and Masters programmes in Food & Nutritional Sciences have been introduced in June 2016.

Research at the university continues to touch greater milestones without sacrificing the focus on societal benefit. For instance, our faculty are involved in the development of sensors for water monitoring in and around Anantapur district. Successful performance of autologous chondrocyte implantation in a patient with osteochondral defect in collaboration with Sri Sathya Sai Institute of Higher Medical Sciences is a noteworthy achievement by our faculty. Besides meeting rural needs, our faculty are also involved in the design and fabrication of high end equipment such as a multimodal microscope and resonant optical gyroscope for a variety of applications.

In addition, 230 research papers were published during the last academic year, many of them in leading, peer-reviewed high impact journals. For a total faculty strength of 162, this number is indeed admirable.

Providing the best possible facilities for our students, scholars and faculty to further excel in their respective areas of interest has always been a priority for the university administration and Sri Sathya Sai Central Trust.

The ₹12 Crore investment on infrastructure and equipment during 2015/16 went towards establishing state-of-the-art research laboratories that house the latest equipment. The new and existing buildings were also equipped with fast computers and broadband connectivity to cater to the needs of all faculty and students.

I am delighted to acclaim the prodigious accomplishments of our university through the committed and passionate personnel who each day make SSSIHL's vision a reality.

With the active and full support of the Sri Sathya Sai Central Trust and the Love and Blessings of our Beloved Bhagawan, we pray that this modern *Gurukula* continues to grow in the direction that He intended.

KBRVarma

Prof. K B R Varma Vice-Chancellor

INTRODUCTION TO SSSIHL

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

The university hosts over 1300 undergraduate, postgraduate and professional programme students across four campuses:

For women students:

 Anantapur Campus at Anantapur, Andhra Pradesh

For men students:

- Prasanthi Nilayam Campus, at Puttaparthi, Andhra Pradesh
- Brindavan Campus, at Whitefield, Bangalore, Karnataka
- 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 in 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

Residential teachers voluntarily make sacrifices 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 other teachers (typically two teachers share 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

This institution is the Ganga of *seva*. The teachers and students of this institution have to live harmoniously and cordially, sharing and caring in loving co-operation. I am confident you will act thus and I bless you for success in this endeavour.

Sri Sathya Sai Baba Revered Founder Chancellor, SSSIHL

Values-based Integral Education

In the words of Bhagawan Sri Sathya Sai Baba, Revered Founder Chancellor, SSSIHL:

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.

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 Process

The diagram on the right 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.

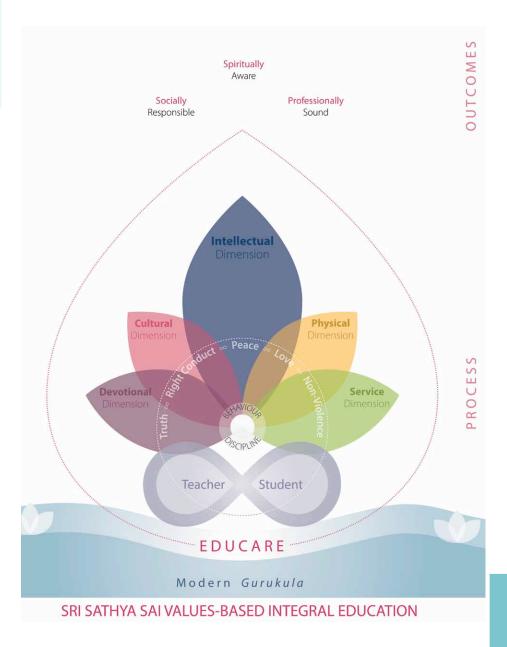
The five human values of Truth, Right Conduct, Peace, Love and Non-violence

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 of the system of Valuesbased Integral Education at SSSIHL is threefold. It prepares all graduates to be:

- Spiritually aware
- Socially responsible and
- Professionally sound

For further information, visit sssihl.edu.in



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.

Its members for 2015/16 were:

- Sri V Srinivasan, All India President, SSS Seva Organisation
- Justice A P Misra, Former Judge, Supreme Court of India
- o Prof. S P Thyagarajan, Former Vice-Chancellor, University of Madras
- Sri S S Naganand, Member, Sri Sathya Sai Central Trust
- Sri R J Rathnakar, Member, Sri Sathya Sai Central Trust
- Sri T K K Bhagwath, Member, Sri Sathya Sai Central Trust
- Sri K Chakravarthi, Member-Secretary, Sri Sathya Sai Central Trust

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 2015/16 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)
- Prof. K S Rangappa, Vice-Chancellor, University of Mysore, Karnataka
- Prof. Sujata Ramadorai, Professor of Mathematics, Tata Institute of Fundamental Research, Mumbai
- Prof. D Swaminadhan, Chairman, Dr. D Swaminadhan Research Foundation (DSRF)
- Dr. Mohan Kanda, Former Chief Secretary, Govt. of Andhra Pradesh (Nominee, MHRD, Govt. of India)
- Prof. Radhakrishnan Nair, Dean, Faculty of Management & Commerce, SSSIHL
- Prof. (Miss) Madhu Kapani, Dean, Faculty of Economics & Humanities, SSSIHL
- Prof. (Miss) Rajeshwari C Patel,
 Professor, Dept. of English Language
 & Literature, SSSIHL
- Prof. (Miss) Ch Radhakumari,
 Professor, Dept. of Management &
 Commerce, SSSIHL
- Dr. Naren Ramji, Registrar, SSSIHL (Secretary)

In 2015/16, The Board of Management met on 18 July 2015, 17 September 2015, 21 November 2015 and 20 February 2016.

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 2015/16 were:

- Prof. Ajay K Sood, Dept. of Physics, Indian Institute of Science, Bangalore
- Prof. Ajaib Singh Brar, Vice-Chancellor, Guru Nanak Dev University, Amritsar, Punjab
- Prof. M H Bala Subrahmanya,
 Chairman & Professor, Management
 Studies, Indian Institute of Science,
 Bangalore
- Dr. K R Suresh Nair, Former Director, Chief Technology Officer, NeST Group, Kochi
- Dr. V Bhujanga Rao, Former
 Distinguished Scientist & Director
 General, Naval Systems and Materials
 (NS & M), Defence Research and
 Development Organisation (DRDO),
 New Delhi
- Sri Brij Mohan, Scientist 'G', Member Secretary, National Research Board (NRB), New Delhi

In 2015/16, The Academic Council met on 23 October 2015.

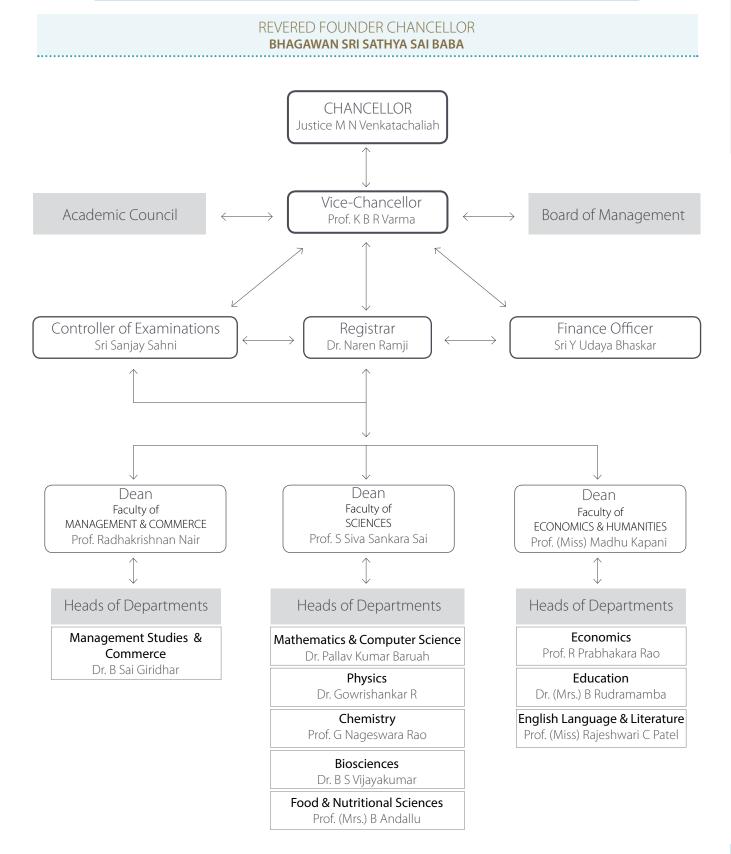
Important Committees

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:

- Boards of Studies
- Research Conferment Cell
- 。 Finance Committee
- Campus-Hostel Management Committee
- Internal Quality Assurance Cell
- Planning and Monitoring Board
- Research Advisory Board
- Institutional Ethics Committee
- Institutional Biosafety Committee
- Building and Works Committee

For further information, visit sssihl.edu.in

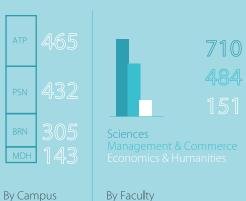
UNIVERSITY STRUCTURE





Student Profile 2015/16





By Programme



Exams-Pass-Rates 2015/16

Undergraduate Programmes

Postgraduate & Professional

External Exams 2015/16

GATE/JEST 2014/15

CSIR-UGC/NET 2014/15

GATE: Graduate Aptitude Test in Engineering JEST: Joint Entrance Screening Test

CSIR: Council of Scientific & Industrial Research UGC: University Grants Commission NET: National Eligibility Test

Graduates 2015/16



Gold Medallists

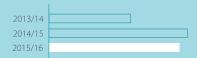


In 2015/16, academic performance at the university continued to set the bar higher. A record number of final year postgraduate students passed National Examinations such as the GATE/JEST and CSIR-UGC NET. Overall examinations pass rates at the university continue to be upwards of 94% across all programmes and departments.

This reaffirms the fact that the model of Sri Sathya Sai Values-based Integral Education—where students spend 60% of their time on academics and 40% on other areas—successfully moulds students in a wholesome manner, in line with the vision of our Revered Founder Chancellor, Bhagawan Sri Sathya Sai Baba.

Expenditure on Equipment & Infrastructure 2015/16

₹ **11.99** cr.



Research and Teaching Grants 2015/16



Student Computer Ratio 2015/16



Admissions 2015/16

517



Undergraduate Acceptance Rates 2015/16



Postgraduate & Professional Acceptance Rates 2015/16



The university continues to invest in equipment and infrastructure across the campuses. A new hostel building at the Muddenahalli Campus was inaugurated on 2 April 2016. The hostel's thirty-seven rooms will accommodate 300-plus students, over twice the current strength.

The new building for the Sri Sathya Sai Advanced Centre for Research and Development is also nearing completion. It will house the latest equipment to facilitate need-based research in the areas of Materials Science, Physics, Chemistry, Biosciences, Food Sciences, Mathematics, Management and Humanities. It will be operational in early 2017.

Our merit-based open admissions policy and low acceptance rates are a reflection of how the carefully chosen students excel in both academics and co-curricular areas and make the most of the atmosphere and facilities here.





Staff Profile 2015/16

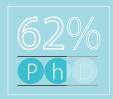
2.4 o

o 1 o administrative



162 Teacher Designations

22 Professor34 Associate Professor90 Asst. Professor16 Others



106

Visiting Faculty & Guest Lecturers

Residential Teachers 2015/16



Student Teacher Ratio 2015/16



Annual Time spent by Students on Integral Education Dimensions



The model of integral education at SSSIHL necessitates a favourable student-teacher ratio and a host of residential teachers who are willing to make sacrifices by living with the students full-time in the hostel. This fosters the ideal environment for the kind of student-teacher interaction that is the basis of a modern *Gurukula*.

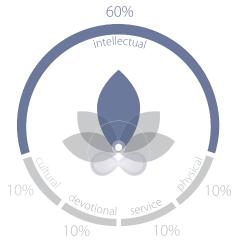
Students have access to brilliant teachers who are both highly qualified (over 60% of all teachers have a Ph.D.) and are willing to go the extra mile to solve students' problems, academically and otherwise. The exposure to scores of visiting faculty and guest lecturers (and their wide experiences), along with an excellent student-teacher ratio that allows for greater individual input, facilitates a high quality of education at SSSIHL for all students.

In addition, students were exposed to over a hundred visiting faculty and guest lecturers from top institutions and organizations in India and abroad.



ACADEMICS 2015/16

SSSIHL is committed to a unique system of education that combines human values with academic excellence.



DIMENSIONS OF SRI SATHYA SAI VALUES-BASED INTEGRAL EDUCATION

ACADEMIC WORKSHOPS & CONFERENCES

To facilitate wider exposure to the developments in academia and industry and enable the exchange of ideas, the university conducted thirteen national and international workshops and conferences during the academic year 2015/16.

International Workshop on Differential Geometry -Foundations & Developments

Dept. of Mathematics & Computer Science, 10-11 Jul 2015

The workshop shed light on the foundations, current developments and future prospects in various branches of differential geometry and its applications in other branches of mathematics and physics through a series of expository and explanatory lectures delivered by renowned academicians.

External experts and guests from:

Ramanujan Math Society, Karnatak University, University of New Haven, IIT Kanpur, TIFR-CAM.

Recent Trends in Networking Technologies

Dept. of Physics, 11 Jul 2015

This one-day workshop highlighted the modern trends in networking technologies by experts from well-known optical networking companies. These included the augmentation of the capacity of fiber optic networks, next

generation data center Interconnects, developments in various layers optimization and multi-layer restoration, etc.

External experts and guests from: *IIT Madras, Infinera, Tejas Networks, CISCO.*

Indian Economy: Emerging Trends & Challenges

Dept. of Economics, 10 Aug 2015

The workshop focused on four important sectors of the Indian economy: agriculture, manufacturing, external sector and the fiscal policy. Talks included Managing India's External Sector, Productivity Growth of Indian Manufacturing Sector in the Post Liberalization Era, Fiscal challenges in India and Indian Economic Growth: Inclusiveness and Food Security.

External experts and guests from:

GITAM University, Jadavapur University, Institute for Social and Economic Change, National Institute of Rural Development.

Symposium on Financial Inclusion

Dept. of Management & Commerce, 22 Aug 2015

The symposium gave students an opportunity to interact and learn from professionals from industry and regulatory bodies in Finance. It was divided into three round table sessions that discussed business models through which

financial products and services could be provided to the disadvantaged and needy, as well as issues involving the design and delivery of appropriate products for financial inclusion and its appropriate regulation and literacy.

External experts and guests from:

Centre for Investment Education and Learning, Birla Sun Life Insurance, Kotak Mahindra Bank, Samunnati, Asirvad Microfinance, Atyati Technologies, Reserve Bank of India, Spark Capital Advisors (India) Private Ltd.

Light Matters

Dept. of Physics, 26-27 Oct 2015

Celebrating the International Year of Light' (IYL2015) recognized by the UN, the workshop focused on the recent advances in the field of photonic applications with scientists, researchers and engineers from across the country working in photonics and materials for photonic applications disseminate their latest results, allowing a cross-disciplinary exchange of knowledge and a showcase of recent inventions and innovations.

External experts and guests from:

LEOS (ISRO), Univ. of Hyderabad, IIT Madras, NITMS, Research Centre Imarat, RRI, Instapower Ltd., Laser Spectra Services and others



Parabolic Partial Differential **Equations and Applications to Image Processing**

Dept. of Mathematics & Computer **Science,** 26-29 Oct 2015

The workshop focused on very fundamental issues of theoretical interest regarding parabolic equations and discussed it's utility to develop models in different fields of applications. The focus of the workshop was: Classical theory of Parabolic Equations, Sobolev spaces: To the extent required to support error analysis and Applications to Image processing: Modeling, simulation and analysis.

External experts and guests from: TIFR CAM, IITK, IIT Kanpur.

Functional Materials and their Applications in Devices

Dept. of Chemistry, 26-28 Nov 2015

This elaborate conference helped students understand integrated approaches to solving scientific problems with practical insights, helping them develop higher qualities toward research. Topics discussed included Quantum Dots for electronic applications, Organic materials for electronic devices, multi electron system, Solar Energy Harvesting, Second harmonic generation, etc.

External experts and guests from:

Several professionals from the Indian Institute of Science, Bangalore.

The 60th DAE-BRNS **Symposium on Nuclear Physics**

Dept. of Physics, 7-11 Dec 2015

This annual event has been instrumental in setting up a tradition for research in nuclear physics (in particular) and

basic sciences in general in our country. The aim of this series of symposia has been to provide a scientific platform to the nuclear physics community to present their research work and to interact with the researchers in this area.

This year, there was a very enthusiastic response in terms of the number of papers (over 500 papers and 20 theses) submitted for presentation at the symposium. In addition there were 26 invited talks delivered by distinguished speakers from India and abroad. An orientation program on Error Analysis of Experimental Data in Nuclear Physics was also arranged.

External experts and guests from:

BARC, VECC Kolkata, SINP, IUAC, TIFR, and several guest from over 100 institutions.

International Symposium on **Computational Science**

Dept. of Mathematics & Computer Science, 12-15 Dec 2015

The symposium brought together interested individuals, active researchers, patrons and practitioners together on one platform to deliberate on the recent happenings in Computational Science

and to dwell on some of the topics and practices. It also included a few tutorials to impart knowledge, experience and exposure to the participants on some of the important areas that influence computational science.

External experts and guests from:

Universities of Melbourne, lowa and Ohio State, IIT Kanpur, IISc, IIT Bombay and others.

Integrated Chemie CONference (ICCON 2016) on Frontiers in Applied Chemistry - From **Molecules to Materials**

Dept. of Chemistry, 12-13 Feb 2015

Sponsored by Tata Chemicals Limited, the conference included several sessions in areas including Lanthanide complexes, Halotolerant organisms, Biopolymeric Materials for a Sustainable and Greener Future, Hydrogenation of Inorganic Carbonates, Intellectual Property, Science behind a Siddha herbometallic drug, Contribution of post-harvest agricultural paddy residue fires in the NW Indo-Gangetic Plain to ambient carcinogenic benzenoids, toxic isocyanic acid and carbon monoxide, Porous Carbon materials for Energy Storage Applications, and several more.

External experts and guests from:

Tata Chemicals IISc. SABIC. ARCI. CSIR National Chemical Laboratory.



Leading with Values - Values and Financial Decisions & Strategies

Dept. of Management & Commerce, 13 Feb 2016

An innovative workshop that brought professionals from various walks of life discussing the impact of ethics (and lack there of) in the world of business and society at large. Through macro-level references such as the Volkswagens emission manipulation scandal and core malpractices at the biggest financial institutions that led to the global economic crisis of 2008 to inspiring examples of the opposite end of the spectrum, the workshop threw light on the fact that through values and ethics, true leadership and positive change can occur.

External experts and guests from:

UBS AG, Cognizant Technologies, Sundaram Finance Pvt. Ltd., Copenhagen Business School

Emerging Trends in Multidisciplinary Approaches to Oncology

Dept. of Chemistry, 27 Feb 2016

The workshop discussed the status of cancer in India and the world, and supplemented the facts with data obtained from scientific literature in the field of Oncology. Topics such as Drug resistance mechanisms in Cancer, Immuno-oncology, Design of small

molecules as inhibitors of mPGES-1 for treating inflammation and cancer and Role of Kinase inhibitors in Cancer Treatment were discussed.

External experts and guests from:

IIT-Madras, NIPER, Aurigene Discovery Technologies, Biocon BMS R&D Center, Bristol-Myers Squibb, COPER.

Challenges in Human Resource Management

Dept. of Management & Commerce, 27 Feb 2016

The workshop was structured into two panel discussions each involving participation of industry experts: Engagement Levels in Organisations – How Leadership based on Ethos and Beliefs can promo the Engagement in this age of Globalization, and People Issue to be focused on in the Make in India era with emphasis on the Generation Y workforce.

External experts and guests from:

Cognizant Technologies, Tata Chemicals, Broward College, Florida, USA, FSSC Scope International.

NEW PRO-GRAMMES

A consolidation of academic programmes led to the rechristening of the Department of Home Science to Food & Nutritional Sciences in Nov 2015. The department subsequently introduced the B.Sc. and M.Sc. in Food & Nutritional Sciences programmes in June 2016.

NEW FACULTY

Twelve new faculty joined the SSSIHL family in 2015/16, bringing the total number of teaching faculty to 162.

- Sri P Sunil Kumar, Asst. Professor,
 Dept. of Mathematics & Computer
 Science
- Dr. (Ms.) P Jyothikumari, Asst.
 Professor, Dept. of Biosciences
- Dr. (Mrs.) Pallavi C, Asst. Professor, Dept. of Biosciences
- Dr. (Mrs.) Ambati Padmaja, Asst.
 Professor, Dept. of Food & Nutritional Sciences
- Mrs. M Pushpa, Asst. Professor, Dept. of Management & Commerce
- Sri Dinesh Kumar Choudhury, Asst.
 Professor, Dept. of Economics
- Dr. Gopakumar K U, Asst. Professor, Dept. of Economics
- Dr. Rajendra Narayan Paramanik, Asst. Professor, Dept. of Economics
- Mrs. B Saisoujanya Kumari, Asst. Professor, Dept. of Education
- Ms. P Padmambika, Asst. Professor, Dept. of Education
- Dr. B Venkata Ramana, Asst. Professor, Dept. of English Language & Literature
- Dr. Srinivas S, Asst. Professor, Dept. of English Language & Literature



STUDENT ACTIVITIES & ACHIEVEMENTS

Projects & Dissertations

Listed below are the key topics/areas of postgraduate and professional programme projects and dissertations chosen by students during the academic year 2015/16.

Mathematics & Computer Science

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

Data Clustering, Object Classification, Facial Expression Recognition using Encoded 3D Kinect Data, Mobile Rx, Video Editor, Diabetic Retinopathy Screening Application, Implementing Web Browser, Study on Compression Algorithms, Lambda Architecture for Big Data, Improving the performance of Heterogeneous Hadoop Cluster, Machine Learning Techniques, Real time Face Detection on Embedded Supercomputer (JetsonK1), Optimization of MPI Communication using Compression on Intel Xeon Phi, Photo Sequencing, Automatic Emotion Recognition from Twitter Data, Image Enhancement using Diffusion Model.

Physics

III B.Sc. (Hons.) in Physics, M.Sc. in Physics, M.Sc. in Materials Science, M.Sc. in Nanoscience and Nanotechnology and M.Tech. in Optoelectronics & Communications and Nuclear Medicine

Interfacing of Safety and Security Sensors to GSM Module, Paper Microfluidics, Study of Chaos in Different Systems, Development of CZTS-based Thin Film Solar Cells, Virtual Lab, Great Experiments in Physics, New Light Weight Transport Method for Secured Transmission of Data for Internet of Things (IoT), Agriculture IoT: A step towards Smart Farming, Segmentation Techniques on Scintigraphic Images, Analysis of the Gamma Spectrum of 160Dy from the beta decay of 160Tb, FTIR Spectra: A powerful characterization technique in water treatment, Studies on Heat Transfer in Materials Using COMSOL, Solar Powered Automatic Systems, Interferometry.

Chemistry

M.Sc. in Chemistry and M.Tech. in Analytical Methods & Chemical Instrumentation
Synthesis of high performance biomaterials for prospective pharmaceutical applications, Use of MoS2 as A Catalyst In Hydrogen
Evolution Reaction and Identification of the Catalytic Surface Morphologies, Analytical Studies using Surface Plasmon Coupled Emission.

Biosciences

M.Sc. in Biosciences

Primer screening and optimization for RAPD analysis of clinically isolated extended spectrum β -lactamase producing E.coli, Optimization and application of DREAM assay, Expression of Dense Granule protein GRA8 in Escherichia coli.

Food & Nutritional Sciences

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

Study on the Antioxidant Properties of Hexane Extract and Meal of Kapok Buds, Nutritional, Phytochemical and Shelf Life Quality of Roselle (Hibiscus sabdariffa L.) Microgreens, Impact of Nutrition Education in the Management of Health on Adolescent Girls, Consumer Education and Shelf Life Evaluation of Selected Millet Based Functional Foods.

Management & Commerce

M.B.A.

Consumer Behaviour in the Use of Streaming Music Services in India, Impact of FDI on Indian Non-life Insurance sector, A Study on Volatility in the Indian Equity Market, A Study of Perception Analysis of SUV Buyers in India, Cost minimisation strategy for an Ice cream unit- Application of Operation Research, Role of Collaboration in Automobile Supply Chain.

Economics

M.A. in Economics

Modelling Value at Risk for Emerging Markets, Analysis of India's Energy Sector, Investment Behaviour of the Private Corporate Sector in India, Forecasting India's Exchange Rates Using Econometric Models and Neural Networks, Energy and Economic Growth: India's Experience, Nexus Between Financial Development and Economic Growth.

English Language & Literature

M.A. in English Language & Literature 19 Jan 1990: The Silent Night of Wails, Quest for Clarity: A Thematic Study of Select Short Stories of Alice Munro, Language and the Media.



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 theoretical learning in the classroom translates in the real world. Students are accompanied by a few teachers on these trips.

Physics

I M.Tech. in Optoelectronics & Communications students, Hyderabad and Bangalore, 16-22 Apr 2016. Organizations visited: Labs at University of Hyderabad, Nuclear Fuel Complex, L&T Metro Rail Project, Medha Servo Drives, ARCI - Centre for Laser Processing of Materials, CISCO, SSSIHMS, Tejas Networks Ltd. and LEOS - ISRO.

Management & Commerce

Anantapur Campus: **II M.B.A.** students, Chennai, 16-20 Apr 2016. Ford India, Symrise, ShriRam City Union Finance, TI Cycles and Sundaram Clayton.

Prasanthi Nilayam Campus: II M.B.A. students, Hyderabad, 15-19 Apr2016. Organizations visited: Pranav Foods, SMS Pharmaceuticals, KSK Mahanandi Power Ventures Ltd., Nuclear Fuel Complex, AGI Glasplac, Medha Servo Drives, CII Green Business Centre and Signode India.

Brindavan Campus: **II M.F.M.** students, Bangalore, 17 Aug and 27 Oct 2015. Organizations visited: TAFE Doddaballapur and Akshaya Patra.

Muddenahalli Campus: III B.B.M. students, Prasanthi Nilayam, 16-17 Nov 2016. Organizations visited: SSSIHMS, SSS General Stores, Prasanthi Nilayam.

Food & Nutritional Sciences

II M.Sc. Food Science and Nutrition and II M.Sc. Food Technology students, Bangalore, 26-29 Sep 2015. Organizations visited: SSSIHMS, Bureau Veritas Consumer Products Services, Karnataka Milk Food Complex, Modern Food Industries, UNIBIC Biscuits, Sreenidhi Roller Mills, Bliss Chocolates, Krish

Food Technologies, Vokian Foods, Mysore Fruit Products, Olive Life Sciences.

Other Activities

National Examinations

A high percentage of SSSIHL postgraduate students qualified in national exams such as the GATE/JEST or the CSIR-UGC NET in 2015/16. The list below includes the national rank for each exam.

Ankit Digarsey (Mathematics) 133 (GATE)

P Krishna Prasanth (Computer Science) 302 (GATE)

R Sai Varun (Computer Science) 3812 (GATE)

B Abhinay (Computer Science) 7990 (GATE)

Dittakavi Sainandan (Computer Science)

10160 (GATE)

S Sai Krishna (Computer Science) 10775 (GATE)

B Sai Krishna (Computer Science) 13835 (GATE)

Manuj Subhankar Sahoo (Computer Science) 8436 (GATE)

Nagaraju Dhulipalla (Computer Science) 7990 (GATE)

P Murali Krishna (Computer Science) 8436 (GATE)

Basanta Sharma (Computer Science) 10613 (GATE)

Aditya Sekhar (Physics) 400 (GATE) | 66 (CSIR-UGC - LS)

Jayesh Sadasivan (Physics) 924 (GATE)

Shreesha Rao D S (Physics) 2001 (GATE)

Angu Sewa (Physics) 2247 (GATE)

Amruthavakkula Shiva (Electronics & Communication Engineering) 15343 (GATE)

Tejkiran (Chemistry) 2232 (GATE) Sai Siva Kumar (Chemistry) 1689 (GATE)

Ashwin Ashok Naik (Biosciences) 2136 (GATE) | 107 (CSIR-JRF)

Balaram Khamari (Biosciences) 303 (GATE)

Divya R (Biosciences) 264 (GATE)

Mangalagouri N Hegde (Biosciences) 1260 (GATE)

Nikhitha Srinivas (Biosciences) 1270 (GATE)

Ananta Rai (Biosciences) 1765 (GATE)

Daksh Seth (Management) (NET-LS) (CSIR-JRF)

Vijay Sai V (Management) (NET-LS) (CSIR-JRF)

Kantemneni Suhash (Management) (NET-LS) (CSIR-JRF)

Sai Satyanarayana V (Management) (NET-LS)

Karan S Khera (Management) (NET-LS)

S Anand (Management) (NET-LS)

Krupakar Reddy (Management) (NET-LS)

M Mallikarjuna (Economics) (JRF)

M P Prashant (Economics) (NET-LS)





FACULTY ACTIVITIES & ACHIEVEMENTS

Mathematics & Computer Science

Prof. V Chandrasekaran

 Invited Talk on Risk Management in Software Development Life Cycle at the Summer Winter School Scheme (SWSS) sponsored by AICTE, Guru Nanak Institutions Technical Campus, Hyderabad, 26 Jun 2015.

Sri Ajith Padyana

 Keynote Speaker at the Workshop on Parallel Computing, National Institute of Technology, Warangal, 11-20 Feb 2016.

Dr. Pallav Kumar Baruah

- Principal Investigator for GPU Research Center, NVIDIA. Awarded to the Dept. of Mathematics & Computer Science, SSSIHL, Jan 2016.
- Participant at the Intel HPC India Round Table, Hilton, Bangalore, 9 Dec 2015.
- Keynote Talk on Accelerated Computing with GPUs, National Workshop on Parallel Computing, The National Institute of Technology (NIT), Warangal, Telangana, 19 Feb 2016.
- Invited Talk on Performance Optimization on Intel® Many Integrated Core (MIC) Architecture and IBM POWER 8, National Workshop on Parallel Computing, The National Institute of Technology (NIT), Warangal, Telangana, 19 Feb 2016.
- Invited Talk on Big Data Computing Platform Hadoop: Performance Improvement, National Workshop on Parallel Computing, The National Institute of Technology (NIT), Warangal, Telangana, 19 Feb 2016.
- General Chair & Program Co-Chair, International Symposium on Computational Science, SSSIHL, 12-15 Dec 2015.
- Reviewer for Journal Applied Mathematics and Computing and Journal of Supercomputing, Springer Publications.
- Member, Technical Programme Committee for several conferences (in 2015/16), including:

SAl'16 – International Symposium on Advances in Applied Informatics, ICACCI 2016 – IEEE Fourth International Conference on Advances in Computing, Communications and Informatics, LN-MIIT, Jaipur (21-24 Sep 2016), ICSN-2016, International Conference on Software Networking 2016 (ICSN2016), Jeju Island, South Korea (23-26 May 2016), ICC'2016 – International Conference on Internet of Things and Cloud Computing, University

of Cambridge, UK (22-23 Mar 2016, IC-CMME'15 – International Conference on Computing in Mechanical Engineering, SCMS, Kochi (10-13 Aug 2016).

Dr. N Uday Kiran

- Invited Talk on Symplectic Geometry and its Applications, 81st Annual Conference of Indian Mathematical Society, Visvesvaraya National Institute of Technology (VNIT), Nagpur, 28 Dec 2015.
- Invited talk on Hyperbolic Operators with Non-Lipschitz Coefficients, TIFR Centre for Applicable Mathematics, Bangalore, 5 Apr 2016.
- Talk on Symplectic Geometry and its Applications, International Workshop on Differential Geometry, SSSIHL, 10-11 Jul 2015.

Dr. Krishna Kiran Vamsi Dasu

Research paper titled Rich Dynamics Exhibited by Predator-Prey Systems with Mutual Interference in The Presence of Inhibitory Effect: A Detailed Theoretical Investigation was selected for ISCA Young Scientists Award Programme, Stream of Mathematical Sciences (Including Statistics), 103rd Indian Science Congress, 3-7 Jan 2016, Mysore.

Physics

Dr. Krishna Chaitanya V

 Invited Lecture at SERC School on Lasers and Nonlinear Optics, Pondicherry University, Puducherry, 22 Mar-11 Apr 2016.

Prof. K Venkataramaniah

- Invited for Collaborative research at Helmholtz zentrum - Gesselschaft fur Schwerionenforschung, Darmstadt, Germany and University of Giessen, Germany on Alexander von Humboldt Stiftung Fellowship, Apr-June 2015.
- Member of the Editorial Board for Journal of Medical Science and Clinical Research.

Sri Muralikrishna Molli

Chaired a technical session on Applications of Ab-initio simulations, International Conference on Materials for Advanced Technologies (ICMAT) 2015, Singapore, 28 Jun-3 Jul 2015.

Chemistry

Prof. Chelli Janardhana

 Two Invited Lectures on The Applications of Group Theory in Chemistry to post-

- graduate Chemistry students, Tellakula Jalayya Polisetty Somasundaram College (TJPS), Guntur, 5 Feb 2016.
- Best Poster award at National Conference on Frontiers in Chemical Sciences and Technologies, National Institute of Technology, Warangal, Telangana, 28-29 Jan 2016.

Dr A Sunil

 Received the Bharath Vibhuti Award for Excellence in Teaching and Research by the Glorious Organisation for Accelerated to Literacy (GOAL), New Delhi, 15 May 2016.

Biosciences

Dr. B S Vijayakumar

 Invited as a Resource Person and Chair Person to conduct oral/poster presentations, Conference on The Frontiers In Bioprocess Technology, Periyar University, Salem, Tamil Nadu, 28-29 Jan 2016.

Dr. (Ms.) Pratima Tripathi

 Invited Reviewer for the following journals:
 British Journal of Medicine and Medical Research, International Cardiovascular Forum Journal and Biochemistry and Analytical Biochemistry, OMICS Publications.

Dr. B E Pradeep

- Invited for an oral presentation on Concept to reality Clinical trial on The role of Autologous Chondrocyte Implantation in Chondral Defects of the Knee Joint, National Seminar on Advances in Polymeric Materials (NSAPM) 2016, Sri Krishnadevaraya University, Anantapur, Andhra Pradesh, 5-6 Feb 2016.
- o Reviewer for the Plos One journal

Food & Nutritional Sciences

Prof. (Mrs.) B Andallu

- Guest lecture on Natural remedies for Stress-Induced Diseases (Diabetes, Cancer and Inflammatory Diseases), National Symposium on Prospects and Potentials in Medicinal and Aromatic Plants (in collaboration with Science Tech Foundation, Bangalore), Department of Botany, Government College, Anantapur, Andhra Pradesh, 19 Dec 2015.
- Invited lecture on Phytoceuticals: A New

Era in Ethnopharmacology, 2nd International Conference on Pharmacology and Ethnopharmacology, Chicago, USA, 2-4 May 2016.

Dr. (Miss) N Srividya

- Poster Award for the poster on Nutraceutical Potential of Fenugreek Microgreens: Phytochemicals and Antioxidant Activity, National Symposium on Prospects and Potentials in Medicinal and Aromatic Plants, National Symposium on Prospects and Potentials in Medicinal and Aromatic Plants (in collaboration with Science Tech Foundation, Bangalore), Department of Botany, Government College, Anantapur, Andhra Pradesh, 19 Dec 2015.
- External Examiner for practical examination and valuation of Nutrition paper on Bachelor of Naturopathy and Yogic Sciences, Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA), Bangalore, Dec 2015.

Mrs. A Sumana

 Delivered a series of radio talks on Measures to Overcome Protein Deficiency, Overcoming Vitamin 'C' Deficiency, Ways of Preserving Vegetables to Meet the Sudden Requirements During Price Rise and Minimize Loss, All India Radio, Anantapur, Andhra Pradesh, May and Dec 2015.

Management & Commerce

Prof. (Miss) N Niranjana

 GRABS Lifetime Achievement Award in recognition and appreciation for outstanding Leadership and Dedication to Student Development, GRABS Educational Charitable Trust, Chennai, 1 Nov 2015.

Prof. (Miss) Ch Radhakumari

 Excellent Paper Award for the Research Paper, A Cost-Effective ERP Formulation – An epitome for Small Enterprises, International Conference on Computer Science, Software, Networking and Information Technology (ICCSSNIT-15), Singapore, 7-8 Nov 2015.

Economics

Dr. R Prabhakar Rao

 Invited talk on Statistical Inference for Social Sciences, ICSSR Course on Research Methodology and Quantitative Techniques in Social Sciences, Christ University, Bangalore, 9 Oct 2015.

Sri G Raghavender Raju

 Resource Person and Invited Lectures (in Technical Sessions) on Two Variable and Multivariate Regression Models and Qualitative Response Regression Model, national-level workshop on Research Methodology and Data Analysis Using Various Statistical Techniques, Southfiled College, Darjeeling, University of North Bengal, 16-22 May 2016.

Education

Prof. (Miss) Madhu Kapani

- Resource Person, UGC-sponsored
 National Workshop on Strategies to
 Enhance Relevance of Higher Education,
 Innovative Teaching and Learning Methods, IQAC & JKC, Government Degree
 College, Uravakonda, Andhra Pradesh, 14
 Dec 2015.
- Invited Talk on Research methodology, Research methodology Programme, IASE& Department of Education, Andhra University, Visakhapatnam ICSSR sponsored), 2-11 May 2016.

Dr. (Mrs.) P Lavanya

Invited Talk on Brain Storming: Strategies
 To Enhance Relevance of Higher Education,
 UGC-sponsored National Workshop on
 Strategies to Enhance Relevance of Higher
 Education, Innovative Teaching and Learning
 Methods, IQAC & JKC, Government Degree
 College, Uravakonda, Andhra Pradesh, 14 Dec
 2015.

Sub-Departments & Languages

Dr. (Mrs.) M Praphulla

 Session Chair, International Seminar on Samskruthe Bharatheeya Kalayaha Soundaryam Cha Tattvam, Dept. of Sanskrit, Banaras Hindu University, Varanasi, 28 Sep 2015.

Prof. R Gangadhara Sastry

 Invited Talks at Government Polytechnic, Vempalli, Andhra Pradesh and Sri Ramakrishna Junior College, Cuddapah, Andhra Pradesh, academic year 2015/16.

Dr. (Miss) Kiron Bala Arora

- Nominated as the Examiner of a thesis presented for Doctorate degree entitled Muktibodh Ke Sahitya Ka Vivechnatmak Adhyayan, Fakir Mohan University, Odisha, 16 Oct 2015.
- Nominated as the Examiner of a thesis presented for Doctorate degree entitled Dalit Kahaniyon Mein Dalit Vimarsh, Dakshin Bharat Hindi Prachar Sabha, Chennai, Jul 2016.

Dr. N Venkatesha Rao

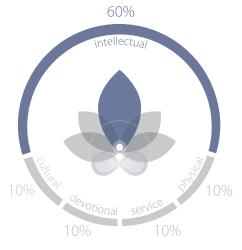
- Resource Person for the work of Kanakadasa's Haribhakti Sara, Poorna Prajna Samshodha Samsthan, Bangalore, 25-29 Apr 2016.
- Resource Person for the deliberations of the work, Geetha Bhashya of Madhvacharya (9th Chapter), Poorna Prajna Samshodha Samsthan, Bangalore.





RESEARCH 2015/16

Research at SSSIHL is focused on societal benefit



DIMENSIONS OF SRI SATHYA SAI VALUES-BASED INTEGRAL EDUCATION

RESEARCH PROJECTS

In the field of science today, there is great emphasis on research and discovery. But unless the results of research are applied in practice, it will be an expensive futility. If all the time is spent on research, when is it to find useful application in practice? Nor is there any sense of discrimination in the promotion of research.

Sri Sathya Sai Baba Revered Founder Chancellor, SSSIHL

Research Projects

The total value of all research grants during the academic year 2015/16 was ₹5.47 crores. Listed below are the research projects during the year.

Physics

Multi Model Microscope: Field Trails (Phase II)

DST-TSDB

Design and development of optofluidic resonator geometries for biomedical sensing applications

UGC-DAE-CSR

Research Based Reforms in Physics Instruction: Classroom and Laboratory

VGST, DST, Govt. of Karnataka

FIST (Fund for Improvement of Science & Teaching Infrastructure)

DST

Mathematics & Computer Science

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

SSSIHL R&D

Near-Real-Time Super Resolution of Aerial Video (Visual and IR) Sequences for Defense Applications

DRDO ER & IP, Delhi, India

Diabetic Retinopathy Screening Tool Zentron Labs Bangalore

Chemistry

Aerial Regiospecific Functionalisation of Anisotropic Nanoparticles & Implications Towards Generation of Plasmonic Metal Nanoclusters

DST INSPIRE Faculty Award

Develop Interfacial Chemistry Based Structure-Property Relationship in Nanodielectric Composites for Enhanced Energy Storage Applications

DST-SERB

Biosciences

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

DBTD

Modulation of TNF Alpha and homocysteube induced inflammation by HDAC and Hsp90 inhibitors

UGC-Start up grant

Interdisciplinary Science Colloquium

The colloquium provides an opportunity for doctoral research scholars, teaching faculty and visiting experts to share their research experiences with one another. It breaks down barriers of communication and helps merge traditionally distinct scientific disciplines, thereby creating new opportunities for research.

All the science departments (across campuses) of the university participate, using the videoconference facility.

The topics for 2015/16 were:

- From Ayurveda to predictive analytics in systems biology
- An overview of WEBSFEM in modelling and simulation
- Air pollution control vis a vis sustainable development
- Clinical implications of breathing
- Research work carried out at Japan Institute of Science and Technology (JAIST)
- Applications of modelling in the human circulatory system



RESEARCH HIGHLIGHTS

Given below are highlights of selected research work at SSSIHL in 2015/16.

Sensors for water monitoring

Three of four million inhabitants of the drought-prone area of Rayalaseema, in Anantapur district, Andhra Pradesh depend on ground water as a major source of drinking water. However, this water contains high levels of fluoride and other contaminants.

An independent study was conducted by the Dept. of Chemistry in 2015/16, with an aim to identify villages in need of safe drinking water, with a specific focus on its three mandals- Puttaparthi, Bukkapatnam and Kothacheruvu. It was observed that a significant number of people were affected by bone fluorosis in places where the average concentration of fluoride in drinking water exceeded 5.0 mg/l against the World Health Organization (WHO) standards of 1.0-1.5 mg/l.

As shown below, Geographical Information System (GIS) maps of water hardness, alkalinity, fluoride and nitrate in the three mandals clearly indicates the high levels of these contaminants in these areas.

The department is in the process of designing sensors for monitoring water quality parameters in the groundwater of shallow and deep aguifers in and around the three mandals and the identification of appropriate aquifer zones for safe drinking water in addition to development of novel water treatment and water shed management technologies.

Resonant Optical Gyroscope

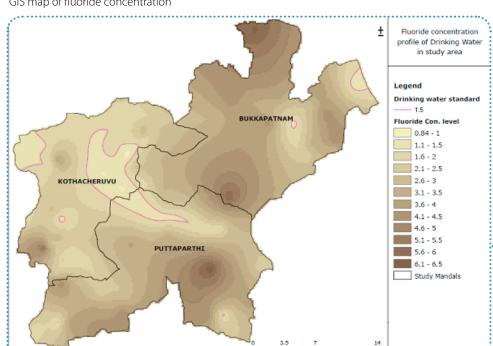
Fiber Optical Gyroscopes (FOG) have been typically useful in medium and low performance applications such as automotive and robotics, and also space applications, which require very high performance under relatively quiet environments. Fiber optical

gyroscopes have not yet been used for aircraft navigation due to the need of high resolution and performance under noisy environments. It is clear that there is a need to investigate and study novel configurations while maintaining the simplicity of the basic configurations.

The Dept. of Physics proposed using theoretical analysis and simulations, a gyroscope that uses a ring resonator with a reflecting element. The proposed structure utilizes the rotation induced Sagnac shift along with the inherent coupling between the clockwise and counter clockwise waves to produce changes in the reflected intensity that vary linearly with rotation. Shot noise limited sensitivities of 0.01 deg/h are shown possible for rings of radius 10 cm.

This makes the Resonant Optical Gyroscope really light weight, highly sensitive and accurate. Therefore, they can be used in satellite navigation, for example, where such sensitivities are of particular importance.





Autologous chondrocyte implantation

Knee replacement surgeries are both painful and very expensive.

In collaboration with Dept. of Orthopaedics, Sri Sathya Sai Institute of Higher Medical Sciences, Prasanthigram, as part of the research focus on Regenerative Medicine and Tissue engineering, the Dept. of Biosciences, SSSIHL has established a cell culture facility for the development of cutting-edge technologies for restoration of chondral defects of the human knee.

The team successfully performed the first indigenous **Autologous Chondrocyte implantation** in August 2015.

The first-year follow-up of the patient has revealed excellent progress in the repair of the cartilage tissue with concomitant increase in the range of the movement of the knee post operation and significant reduction in pain.

Multimodal Microscope

Optical microscopic investigations have become an essential tool in routine clinical pathology and developmental biology research work. The primary necessity for developing such a device arises from the growing need for affordable diagnostic tools in India.

The Dept. of Physics have adopted the Fourier optical image processing techniques to incorporate the multi-modalities.

With the support of DST-Technology Systems Development Board, the department developed a multimodal optical microscope keeping in mind the worldwide development in achieving cost effective disease diagnosis tools as well as an essential research and teaching tool.

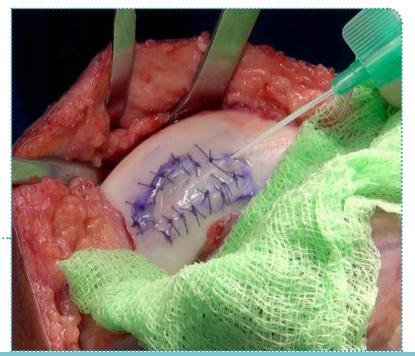
The prototype design of a low cost **Multimodal microscope** was successfully completed during 2015/16.

This optical microscope encompasses multiple functionalities like Bright Field imaging, Phase Contrasting, Edge enhancement and Fluorescence imaging, all provided in a single platform. These additions further enhance the image quality in the module, making it highly suitable for developmental biology studies and clinical pathology.

Apart from being relatively cost effective in its design, it offers a functional advantage of easier live cell imaging with simplicity in operation.

Seeing the sample under various modalities is achieved by just changing the filters without disturbing the sample.

Chrondrocyte implantation in progress



Multimodal microscope



RESEARCH SCHOLARS ACTIVITIES & ACHIEVEMENTS

Mathematics & Computer Science

Sri Sai Hareesh A

- Reviewer for Journal of Visual Communication and Image Representation, Elsevier, 2015/16.
- Reviewer for International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, World Scientific, 2015/16.

Physics

Sri Pradyumna Mulpur

- o Best Paper Award for the work, Studies on Carbon Nanotubes and Carbon Dots based Spacer Layers on Silver Thin Film Substrates towards Boosted Surface Plasmon Coupled Emission. Presented at the International Conference on Recent Advances in Nano Science and Technology, RAINSAT-2015, (in collaboration with Central Leather Research Institute, CLRI), Sathyabama University, Chennai, 8 Jul 2015.
- Research work (A Novel Surface Plasmon Coupled Emission Enabled Forensic Detection Platform) featured on Cover Page of the International Newsletter, Nanotech Insights, Jan 2016.

Sri Murali Ravi

 Best Poster Award for the paper, A System on Chip Solution for Processing of Gamma Camera Images for Thyroid Uptake Studies, 60th DAE-BRNS Symposium on Nuclear Physics, Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam, 7-11 Dec 2015.

Chemistry

R Sri Sai Giridhar Sarma Kandanur

Filed complete specification India patent for Andrographolide and analogues as multi-therapeutic agents, PATENT-IN6104/CHE/2014-Pending, 3 Dec 2014. Inventors: Sai Giridhar Sarma K, Nageswara Rao G, Srinivas Kanduri.

Sri K Naga Sai Visweswar

 Best Poster award at the National Conference on Frontiers in Chemical Sciences and Technologies, National Institute of Technology, Warangal, Telangana, 28-29 Jan 2016.

Sri S Venkatesh

 Runner Up, Young Scientist Award (Physics) for research work on 1-Minute Cavity Engineering for >1000-fold Enhancements in Surface Plasmon-Coupled Emission: A Mobile Phone Based Next-Gen Plasmonics Approach, Dr. KV Rao Scientific Society Annual Research Awards 2015/16.

Dr. A Sunil, Dr. Sasidhar Siddabattuni, Sri K M Ganesh, Sri Sai Giridhar S, Sri K Naga Sai Visweswar, Sri Pradeep Kumar Badiya, Sri S Venkatesh, Sri Abilash Gangula, Sri Thota Sai Praneeth, Sri Sai Siddhartha

Three-week internship at Japan
 Advanced Institute of Science and
 Technology (JAIST), part of the Sakura
 Science Exchange Program under
 the auspices of Japan Science and
 Technology (JST). The ten Doctoral
 / Post-Doc Research Scholars from
 SSSIHL participated in this intense
 Research Exposure Program in the areas

of Advanced Scientific Methods and Frontier Research Areas in Materials Science at JAIST, Nomi-shi, Ishikawa, Japan, 10-30 July 2015.

Biosciences

Sri Aswath Narayanan S

 Poster Presentation on Probing Molecular Changes in Avascular Necrosis of Femoral Head: Raman Microscopy. Optics Within Life Sciences (OWLS) Conference, Tata Institute of Fundamental Research (TIFR), Mumbai, 16-19 Mar 2016.

Food & Nutritional Sciences

Miss Manjula Devi Ghoora

 Poster award for Nutraceutical Potentials of Fenugreek Microgreens: Phytochemicals and antioxidant activity presented at the National Symposium on Prospects and Potentials in Medicinal and Aromatic Plants (in collaboration with Science Tech Foundation, Bangalore), Department of Botany, Government College, Anantapur, Andhra Pradesh, 19 Dec 2015.



RESEARCH PUBLICATIONS

Mathematics & Computer Science

JOURNAL PAPERS

Sai Hareesh A and Chandrasekaran V, Color Child: A Novel Color Image Local Descriptor for Texture Classification and Segmentation, *Pattern Analysis and Applications*, 19(3), 821-837, (2016).

Bharadwaj B V K and Baruah P K, Existence of a Non-Oscillating Solution for a Second Order Nonlinear ODE, *Communications in Mathematics and Applications*, 6(2), 41-47, (2015).

Ajith Padyana and Baruah P K, Performance of DNA Sequences Compression on Multicores and GPUs, *RGN Publications*, 7(3), 131-147, (2015).

Sree Ranga Vani K and Prasada Rao D R V, Effect of Thermal Radiation on Unsteady Convective Heat Transfer Flow of a Rotating Nano-Fluid Past a Vertical Plate, **Pelagia Research Library, Advances in Applied Science Research**, 7(3), 83-94, (2016).

Sree Ranga Vani K and Prasada Rao D R V, Effect of Non-Linear Density Variation on Convective Heat and Mass Transfer with Third Order Boundary Conditions, *Mathematical Theory and Modelling*, 5(12), 112-123, (2015).

Sree Ranga Vani K and Prasada Rao D R V, Combined Influence of Chemical Reaction, Dissipation and Radiation Absorption on Convective Heat and Mass Transfer Flow in a Non-Uniformly Heated Vertical Channel, Advances in Physics Theories and Applications, 47, 32-44, (2015).

CONFERENCE PAPERS

lyer G, Baruah P K and Mukkamala R, Privacy-Preserving Frequent Itemset Mining in Outsourced Transaction Databases, *IEEE-ICACCI 2015*, (10-13 Aug 2015), Kochi, India.

Harish, Ayyappa T, Sai Santosh and Baruah P K, D-Face: Parallel Implementation of CNN based Face Classifier Using Drone Data on K40 and Jetson TK1, *IEEE HiPC, Student Research Symposium*, (16-19 Dec 2015), Bangalore, India.

Vishnuvardhan, Reddy V and Baruah P K, Scaling Up Training of Deep BLSTM Networks for Hand Written Text Recognition, *IEEE HiPC, Student Research Symposium,* (16-19 Dec 2015), Bangalore, India.

Lalith Srikanth C and Raghunatha Sarma R, Spectral clustering using Topological Node Features (TNF), **2016 International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS)**, (17-18 Mar 2016), Karpagam Engineering College, Coimbatore, Tamil Nadu, 4, 1513-1517.

Kumar A and Balasubramnainan S, Sparse Representation based Background Subtraction in Videos, **NCVPRIPG**, (17-19 Dec 2016, IIT Patna, India.

Soukharev V, Jao D and M Seshadri Srinath, Post-Quantum Security Models for Authenticated Encryption, 7th International Conference on Post-Quantum Cryptography (PQCrypto 2016), Fukuoka, Japan. Takagi, T. (Ed.), Springer International Publishing, (24-26 Feb 2016), pp64-78.

Physics

JOURNAL PAPERS

S Deepa, Dwaraka Rani Rao and Venkataramaniah K, Precision Electron– Gamma Spectroscopic Data from The Beta Decay of 153Sm, *Radiation Physics and Chemistry*, 119, 207, (2016).

L A Avinash Chunduri, Aditya D Kudekar, Sandeep Patnaik, Vishnu Dev B, Tanu Mimani Rattan and Venkataramaniah K, Carbon Quantum Dots from Coconut husk: Evaluation for Anioxidant and Cytotoxic Acitivity, *Materials Focus*, 5(1), 55-61, (2016).

Sivasubramaniyan V, Osho Sai and Venkataramaniah K, Renal Perfusion Phase Curve Analysis in DTPA Renal Scintigraphy-Significance and Utility, *Asian Journal of Medical Sciences*, 7(2), 44-48, (2016).

Rahul Namdeo, Sivasubramaniyan V, Vijay Sai K and Venkataramaniah K, Scintimetric Evaluation in the Assessment of Delayed Union of Skeletal Fractures, International Journal of Innovative Research and Development (2015). http:// www.ijird.com/index.php/ijird/article/ view/74783/58198, Vol. 4(8), 362-365, (2015).

Pradyumna Mulpur, Sairam Yadavilli, Praharsha Mulpur, Neeharika Kondiparthi, Bishwambhar Sengupta, Apparao M Rao, Ramakrishna Podila and Venkataramaniah K, Flexible Ag-C60 Nano-Biosensors Based on Surface Plasmon Coupled Emission for Clinical and Forensic Applications, *Physical Chemistry Chemical Physics*, 17(38), 25049-25054, (2015).

Sai Kiran Aditha, L A Avinash Chunduri, Sandeep Patnaik, Tanu M Rattan and Venkataramaniah K, Cu2ZnSnS4 Synthesised Through a Low Cost Reflux Method, **Nanotechnology Reviews**, 4(5), 473-478, (2015).

E Rajasekhar, R Jeevan Kumar, K L Narasimham and Venkataramaniah K, Comparison of Gamma Ray Attenuation Coefficients of Wood Materials with Theoretical Values, *Journal of Global Biosciences*, 4(1), 1836-1841, (2015).

V Sivasubramaniyan and Venkataramaniah K, Direct detection of Left Ventricular Diastolic Dysfunction by Phase Image Analysis in Gated Thallium SPECT Scan, *Journal of Medical Science and Clinical Research*, 4(7), 11226-11233, (2016).

Sivasubramaniyan V and Venkataramaniah K, Non-invasive Quantitative Characterization of Skeletal Metastasis in Carcinoma Prostate by Tc99m MDP Bone Scans using Dr. V Siva's Retention Ratio in Correlation with Serum PSA Levels, *Medical & Surgical Urology*, 5(2), 1-6, (2016).

Sivasubramaniyan V and Venkataramaniah K, Temporal Scintimetric Characterization of Skeletal Hotspots in Bone Scan by Dr. V Siva's Retention Ratio, *Advances in Intelligent Systems and Computing*, 433, 297-305, (2016).

Sivasubramaniyan V, Adavala Jagadeesh and Venkataramaniah K, Utility of 99mTc DTPA Renogram in the Evaluation of Renal Dysfunction Associated with Coronary Artery Disease in a Hypertensive Patient, *Journal of Medical Science and Clinical Research*, 4(6), 10912-10914, (2016).

Sivasubramaniyan V, Sai Shiv Narayan and Venkataramaniah K, Comparison between GFR Values Obtained by CG-formula and DTPA Renography in Different Renal Disorders, *Journal of Medical Science and Clinical Research*, 4(6), 10996-11000, (2016).

Shiva Amruthavakkula, Sai Vignesh T, Sivasubramaniyan V, Rajamani Kumar T and Siva Sankara Sai S, Development of an Interactive GUI Tool for Thyroid Uptake Studies using Gamma Camera, *International Journal of Biomedical and Clinical Engineering*, 5(1), 2161-1629, (2016).

Benoy Anand, Mehmet Karakaya, Gyan Prakash, S Siva Sankara Sai, Reji Philip, Paola Ayala, A K Sood, Anurag Srivastava, Apparao Rao and Ramakrishna Podila, Dopantconfiguration Controlled Carrier Scattering in Graphene, *RSC Advances*, 5, 59556-59563, (2015).

Gowrishankar R and Sood P C, Level Structures in Odd-Odd Deformed Nucleus 184Ta, *Eur. Phys. J A*, 52, 31, (2016).

F Kondev, E McCutchan, B Singh, J Tuli, S Deepa, K Vijay Sai and R Gowrishankar, Nuclear Data Sheets for A = 227, **Nuclear Data Sheets**, 132, 257-354, (2016).

Abhijit B K, Aditya Jayaraman and Muralikrishna Molli, Electronic Band Structure And Optical Properties of Antimony Selenide Under Pressure, *AIP Conference Proceedings*, 1731. DOI: 090020-1–090020-3, (2016).

Aditya Jayaraman, Abhijit Bhat Kademane, and Muralikrishna Molli, DFT Study on the Carrier Concentration and Temperature-Dependent Thermoelectric Properties of Antimony Selenide, *Indian Journal of Materials Science*. Article ID: 7296847, (2016)

Muralikrishna Molli, Prabin Pradhan, Devarun Dutta, Aditya Jayaraman, Abhijit Bhat Kademane, V Sai Muthukumar, Venkataramaniah K, Reji Philip, Study Of Nonlinear Optical Absorption Properties of Sb2Se3 Nanoparticles in the Nanosecond and Femtosecond Excitation Regime, **Applied Physics A**, 122, 549-553, (2016).

Shailesh Srivastava and Bibhuti Patnaik, Resonant Optical Gyroscope with 'Reflector': Analysis and Simulations, *Journal of Optics* (*Springer*), 45 (2), 152-157, (2015).

Prathibha Chinnakoti, Avinash L A Chunduri, Ranganayakulu K. Vankayala, Sandeep Patnaik, Venkataramaniah K, Enhanced fluoride Adsorption by Nano Crystalline Gamma Alumina: Adsorption Kinetics, Isotherm Modeling and Thermodynamic Studies, *Applied Water Science*. DOI: 10.1007/s13201-016-0437-9, (2016). Sai Kiran Aditha, Aditya Dileep Kurdekar, L A Avinash Chunduri, Sandeep Patnaik, Venkataramaniah K, Aqueous Based Reflux Method for Green Synthesis of Nanostructures: Application in CZTS Synthesis, *Methods X*, 3, 35-42, (2016).

Pradyumna Mulpur and Venkataramaniah K, A Novel Surface Plasmon Coupled Emission Enabled Forensic Detection Platform, **Nanotech Insights**, 7(1), 8-15, (2016).

Sandeep Patnaik, L A Avinash Chunduri, M Sai Akilesh, Krishna S B and Venkataramaniah K, Enhanced Dissolution Characteristics of Piroxicam Soluplus® Nanosuspensions, *Journal of Experimental Nanoscience*. http://dx.doi.org/10.1080/17458080.2016.1178402, (2016).

Pradyumna Mulpur, Ramakrishna Podila, Apparao M Rao, Venkataramaniah K, Carbon Nanotubes as Novel Spacer Materials on Silver Thin-Films for Generating Superior Fluorescence Enhancements via Surface Plasmon Coupled Emission, *Materials Research Express*, 3(6), 066402, (2016).

Aditya Kurdekar, L A Avinash Chunduri, Eswarappa Pradeep B, Mohan Kumar H, Venkataramaniah K, Indira K Hewlett, Comparative Performance Evaluation of Carbon Dot-Based Paper Immunoassay on Whatman Filter Paper and Nitrocellulose Paper in the Detection of HIV Infection, *Micro Fluidics and Nanofludics*, 20(7), 1-13. DOI: 10.1007/s10404-016-1763-9, (2016).

Pradyumna Mulpur, Sairam Yadavilli, Apparao M Rao, Venkataramaniah K, and Ramakrishna Podila, MoS2/WS2/BN-Silver Thin-Film Hybrid Architectures Displaying Enhanced Fluorescence via Surface Plasmon Coupled Emission for Sensing Applications, **ACS Sensors**, 1(6), 826-833, (2016).

E Rajasekhar, R Jeevan Kumar, K Vijay Sai, Sai Prem Shaji, B V Avinash and Venkataramaniah K, Gamma Radiation Method for the Determination of Density of Wood materials, **South Asian Journal of Experimental Biology**, 5(1), 17-21. http://sajeb.org/index.php/sajeb/article/ view/20030. Global Impact Factor 2012 -0.495, (2015).

CONFERENCE PAPERS

Rajasimha K, Angu S and Krishna Chaitanya V, Low cost, Laser Sintered, Printable SERS

substrates, *International Conference on Material Science and Technology (ICMST)*, (5 Jun 2016), Dept. of Physics, St. Thomas College, Kerala.

Rajasimha K, Shashidhara T G, Angu Sewa and Krishna Chaitanya V, Laser Sintering of Silver Nanoparticles: Printable Micro-electrodes on Flexible Substrates, International Conference on Applications of Lasers in Manufacturing (CALM) (2015), (9-11 Sep 2015), New-Delhi. Proceedings of International conference on Applications of Lasers in Manufacturing.

Aditya Kurdekar, L A Avinash Chunduri, Pradeep B E, Mohan Kumar H, Venkataramaniah K and Indira K Hewlett, Carbon Dots based Paper Immunoassay (CDPIA) for sensitive detection of HIV-1 p24 Antigen, International Conference on Nanoscience and Technology (ICONSAT-2016), International Conference on Nanoscience and technology 2016 (ICONSAT-2016), (29 Feb-2 Mar 2016), Indian Institute of Science Education and Research, (IISER), Pune.

L A Avinash Chunduri, Mohan Kumar H, Pradeep B E, Indira K Hewlett and Venkataramaniah K, Detection of HIV-1 P24 Antigen on Microplate and Microfludic Chip Using Carbon Dots as Fluorescent Labels, *Fourth Nano Today Conference*, (6-10 Dec 2015), Dubai, UAE.

L A A Chunduri, M K Haleyurgirisetty, Bulagonda P E, Indira K Hewlett and Venkataramaniah K, Development of Fluorescent ZnO Nanoparticle based Immunoassay Technology for the Detection of HIV-1 (P24) Antigen, *Fourth Nano Today Conference*, (6-10 Dec 2015), Dubai, UAE.

C Prathibha, L A Avinash Chunduri, A Sai Kiran and Venkataramaniah K, Zirconium Impregnated Graphene Coated Sand: A Low Cost Bio Adsorbent for Defluoridation of Water, *Fourth Nano Today Conference*, (6-10 Dec 2015), Dubai, UAE.

C Prathibha, L A Avinash Chunduri, N L Reddy, M V Shankar, V K Ranganayakulu and Venkataramaniah K, Hydrogen Trititanate (H2Ti3O7) Nanotubes: A Novel and Efficient Adsorbent for Defluoridation of Water, *Fourth Nano Today Conference*, (6-10 Dec 2015), Dubai, UAE.

L A Avinash Chunduri, C Prathibha, Pradeep B E and Venkataramaniah K, Evaluation of Antioxidant and Cytotoxic activity of Carbon Quantum Dots from Coconut Shell. *Recent Advances in Nanoscience and Technology (RAINSAT-2015)*, (8-10 Jul 2015), Sathyabama University, Chennai.

Sai Kiran Aditha and Venkataramaniah K, Synthesis and Photoelectrochemical Characterization of CZTS via Low Cost Reflux Method. *Recent Advances in Nanoscience and Technology (RAINSAT-2015)*, (8-10 Jul 2015), Sathyabama University, Chennai.

C Prathibha, L A Avinash Chunduri, V K Ranganayakulu, A Sai Kiran and Venkataramaniah K, Nano crystalline γ-alumina: A Potential Defluoridation Sorbent for Drinking Water Applications. **Recent Advances in Nanoscience and Technology (RAINSAT-2015)**, (8-10 Jul 2015), Sathyabama University, Chennai.

Sandeep Patnaik, L A Avinash Chunduri, M Sai Akilesh, Tanu Rattan and Venkataramaniah K, Wet ball Milled Piroxicam-Soluplus® Nanoformulations for Enhanced Bioavailability. *Recent Advances in Nanoscience and Technology (RAINSAT-2015)*, (8-10 Jul 2015), Sathyabama University, Chennai.

V Sivasubramaniyan, Venkataramaniah K, Scintimetric Characterization of Skeletal Hot Spots in Ca.Prostate. *International Conference on Clinical PET-CT and Molecular Imaging (IPET 2015): PET-CT in the era of multimodality imaging and image-guided therapy*, (5-9 Oct 2015), Austria.

Sivasubramaniyan Viswanathan, Kannan Sounderrajan and Venkataramaniah K, Interpretative Structured Reporting - SAIVIEW. *International Conference on Soft Computing and Pattern Recognition (SoCPaR 2015)*, (13-15 Nov 2015), Kyushu University, Fukuoka, Japan.

Abhinav Nair, Prabin Pradhan, Sai Muthukumar V, Gowrishankar R, Shailesh Srivastava and Siva Sankrara Sai S, Development of Low Cost Multimodal Microscope using Fourier Optical Image Processing with Dye Doped Twisted Nematic Liquid Crystals. Eighth International conference on Materials for Advanced Technologies of the Materials Research Society of Singapore (ICMAT 2015) and IUMRS-ICA 2015, (28 Jun -3 Jul 2015), Singapore. Sivasubramaniyan V and Venkataramaniah K, Temporal Scintimetric Characterization of Skeletal Hotspots in Bone Scan by Dr. V Siva's Retention Ratio. *Third International Conference on Information System Design and Intelligent Applications*, (8-9 Jan 2016), ANITS, Visakhapatnam.

Anilal P, B V Sainandan and Siva Sankara Sai S and Prabhakara Yellai, Experimentation and Analysis of Multipath TCP. *Ninth IEEE International Conference on Advanced Networks and Telecommunication Systems (ANTS)*, (15-18 Dec 2015), Indian Statistical Institute, Kolkata.

Govardan C, Sri Krishna Chaitanya K, Krishna Kumar Naik B, Shreesha Rao D S, Jagadeesh C, Gowrishankar R and Siva Sankara Sai S, A Heuristic Algorithm for Network Optimization of OTN over DWDM Network. *Ninth IEEE International Conference on Advanced Networks and Telecommunication Systems (ANTS)*, (15-18 Dec 2015), Indian Statistical Institute, Kolkata. DOI: 10.1109/ANTS.2015.7413606; p1-6

Jagadeesh C, Sainandan B V, Shiva A, Sachin S, Krishna Kumar Naik B, Shreesha Rao D S and Gowrishankar R, Demonstration of a Smart Communication System using LiFi. *Ninth IEEE International Conference on Advanced Networks and Telecommunication Systems (ANTS)*, (15-18 Dec 2015), Indian Statistical Institute, Kolkata. 978-1-5090-0293-1/15; pp374-376.

Sairam Lodhi, Amar Sainath Reddy, Aditya Sarma Tangirala, Satyabrata Mohanty, Ramaprasad P, Gowrishankar R and Siva Sankara Sai, Agriculture IoT: A Step Towards Better Livelihood of Farmer. *Ninth IEEE International Conference on Advanced Networks and Telecommunication Systems (ANTS)*, (15-18 Dec 2015), Indian Statistical Institute, Kolkata

Shiva A, Siva Sankar Sai S, Kumar Rajamani and Siva Subramaniyan V, A Study on Segmentation of Renal Scintigraphy using Level Sets Algorithm. *Third International Conference on Image Information Processing*, (Dec 2015), Wakanghat, Shimla. ISBN-978-1-5090-0148-4, p290-294.

Palla Sri Harsha, Shiva A, Kumar T Rajamani, Siva Subramanyam and Siva Sankar Sai S, An Interactive Freehand ROI Tool for Thyroid Uptake Studies using Gamma Camera. **Third International Conference in Information** System Design and Intelligent applications - Advances in Intelligent Systems and Computing, (Dec 2015), Wakanghat, Shimla. ISBN 978-81-322-2755-7, p349-55.

Sood P C, Burke D G, Vijay Sai K and Gowrishankar R, ΔK=0 Admixed Band Structures in the odd-odd Deformed Nucleus Lu176. 60th DAE-BRNS symposium on Nuclear Physics, (7-11 Dec 2015, SSSIHL, Prasanthi Nilayam, Andhra Pradesh. Proceedings of DAE-BRNS Symposium on Nuclear Physics, 60 (2015) 120 [A33]. http:// sympnp.org/proceedings/

Harsha Theja K, Murali Ravi, Aditya Sarma, Sachin Sable, Sivaramakrishnan S and Siva Sankara Sai S, System on Chip Solution for Processing of Gamma Camera Images for Thyroid Uptake Studies. *60th DAE-BRNS Symposium on Nuclear Physics*, (7-11 Dec 2015), SSSIHL, Prasanthi Nilayam, Andhra Pradesh. Proceedings of the DAE-BRNS Symposium on Nuclear Physics, Vol. 60. 942-43, 60. http://sympnp.org/proceedings/

Vijay Sai K, Gowrishankar R, Saisivaramakrishna M and Sood P C, Long-Lived Isomers in the Z=71 (Lu) isotopic sequence. *60th DAE-BRNS symposium on Nuclear Physics*, (7-11 Dec 2015), SSSIHL, Prasanthi Nilayam, Andhra Pradesh. Proceedings of the DAE-BRNS Symposium on Nuclear Physics, Vol. 60 (2015), p142-143.

Vijay Sai K, Gowrishankar R, Murthy A V R, Bharadwaj P S J and Sood P C, N Forbidden Allowed β-decays in Deformed Nuclei. *60th DAE–BRNS symposium on Nuclear Physics*, (7-11 Dec 2015), SSSIHL, Prasanthi Nilayam, Andhra Pradesh. Proceedings of the DAE-BRNS Symposium on Nuclear Physics, Vol. 60 (2015), p290-291.

Deepa S, Dwaraka Rani Rao and Venkataramaniah K, New levels in 160 Dy from the beta decay of 160Tb. **DAE-BRNS Symposium on Nuclear Physics**, (7-11 Dec 2015), SSSIHL, Prasanthi Nilayam, Andhra Pradesh. Proceedings of the DAE-BRNS Symposium on Nuclear Physics, Vol. 60 (2015), p116.

Sood P C, Sheline R K, Gowrishankar R and Vijay Sai K, Level Structures in the N=91 Odd-Odd Nucleus 156Tb. *60th DAE-BRNS symposium on Nuclear Physics*, (7-11 Dec 2015), SSSIHL, Prasanthi Nilayam, Andhra Pradesh. Proceedings of the DAE-BRNS Symposium on Nuclear Physics, Vol. 60 (2015), p122-123.

Gowrishankar R, Jena K, Adhitya S, Vijay Sai K and Sood P C, Level Structures in n-rich Np(Z=93) Isotopes, *DAE-BRNS symposium on Nuclear Physics*, (7-11 Dec 2015), SSSIHL, Prasanthi Nilayam, Andhra Pradesh. Proceedings of the DAE-BRNS Symposium on Nuclear Physics, Vol. 60 (2015), p76-77.

Subam Rai, K V Sai Sundar, K Vijay Sai and Debendranath Sahoo, Simulation of a CZT - Detector for Application in SPECT Imaging Using GATE – a Geant4 Plug-in. *DAE – BRNS Symposium on Nuclear Physics*, (7-11 Dec 2015), SSSIHL, Prasanthi Nilayam, Andhra Pradesh. Proceedings of the DAE-BRNS Symposium on Nuclear Physics, Vol. 60 (2015), 940 - [G19].

Murali Ravi, Sachin Sable, T Aditya Sarma, K Vijay Sai, S Sivaramakrishnan and S Siva Sankara Sai, Hardware Design of Data Acquisition Mechanisms in Small Organ Imaging Gamma Camera. *DAE – BRNS Symposium on Nuclear Physics*, (7-11 Dec 2015), SSSIHL, Prasanthi Nilayam, Andhra Pradesh. Proceedings of the DAE-BRNS Symposium on Nuclear Physics, Vol. 60 (2015) 1086 – [G92]. http://sympnp.org/proceedings/

Romala Satti Babu, Hari Nanda Kumar and Shailesh Srivastava, Stress Sensor with Few Mode Fibers. *Light Matters 2015*, (26-27 Oct 2015), SSSIHL, Prasanthi Nilayam.

Pradyumna Mulpur, Sairam Yadavilli, Ramakrishna Podilla, Apparao M Rao, Venkataramaniah K, Studies on Carbon Nanotubes and Carbon Dots based Spacer Layers on Silver Thin Film Substrates towards Boosted Surface Plasmon Coupled Emission. *Recent Advances in Nanoscience and Technology (RAINSAT-2015)*, (8-10 Jul 2015), Sathyabama University, Chennai.

Sadhu Sai Prashanth, Tukaram S, Akash Pradhan, Abhijit B K, Muralikrishna Molli, Sai Muthukumar V and K B R Varma, Nonlinear Optical Properties of Relaxor Ferroelectric Material: Tellurium Vanadate (Te2V2O9). **Recent Advances in Optical Sciences**, (6-7 May 2016), University of Hyderabad.

Chemistry

JOURNAL PAPERS

Ganesh K M, Suryanarayana G and Chelli Janardhana, Determination of Water Quality Index of the Groundwater in the Villages of the Kothacheruvu Mandal, Anantapur District, Andhra Pradesh, India on a GIS Platform. *International Journal of Current Research*, 7(6), 17616-17621, (2015).

Chauvan S, Singh K, Chauvan M S, Ahmad Umar and Sundaresan C N, Intermolecular Interactions of L-glutamine and L-histine in Aqueous Solutions of Metformin Hydrochloride: Thermo-acoustic and Optical Properties. *Journal of Molecular Liquids*, 214 (Feb), 390-399, (2016).

Chauvan Santosh Kumari, Kuldeep Kumar, Ahmad Umar, Sundaresan C N and Gupta R, Influence of iso-perthiocyanic acid and Temperature on the Aggregation Properties of Sodium Dodecylsulphate in Dimethylsulphoxide. *Journal of Molecular Liquids*, 211 (Nov), 338-345, (2015).

Arathi P J, Parth Gupta, Jagadeesh Babu N, Sundaresan C N and Ramanathan V, Conformation analysis of 1",4" - Dispirocyclohexane-6,6'-bis(benzothiazoline): Combined IR, Raman, XRD and DFT Approach. **Spectrochima Acta Part A: Molecular and Biomolecular Spectroscopy**, 217, 192-196, (2016).

Chauvan S, Kulpdeep Singh, Kuldeep Kumar, Sundaresan C N and Girish Kumar, Drug-Amino Acid interactions in Aqueous Medium: Volumetric, Compressibility, and Viscometric Studies. *Journal of Chemical and Engineering data*, 61, 788-796, (2016).

Sundaresan C N, Singh D K and Sunil A, Sensing of Mercury(II) using 1-(1H-Benzimidazol-2-yI) Guanidine as Chromophore. *Journal of Advanced Chemical Sciences*, 2(1), 195-197, (2016).

Ramakrishna M, Rajesh Babu D, Gengan R M, Chandra S and Nageswara Rao G, Green Synthesis of Gold Nanoparticles using Marine Algae and Evaluation of their Catalytic Activity. *Journal of Nanostructure in Chemistry*, Vol. 6(1), 1-13, (2015).

Sai Giridhar Sarma Kandanur, Nageswara Rao Golakoti and Srinivas Nanduri, Synthesis and In-vitro cytotoxicity of novel C-12 substituted-14-deoxy-andrographolide Derivatives as Potent Anti-Cancer Agents. **Bioorganic & Medicinal Chemistry Letters**, 25(24), 5781-5786, (2015).

Tejkiran P J, Brahma Teja M S, Sai Siva Kumar P, Pranitha Sankar, Reji Philip, Naveen S, Lokanath N K and Nageswara Rao G, D-A-p-D Synthetic Approach for Thienyl Chalcones – NLO – A Structure Activity Study. *Journal of Photochemistry and Photobiology A: Chemistry*, 364, 33-39, (2016).

Venkatesh S, Dnyanesh Vernekar, Garima Jaiswal, Dinesh Jagadeesan and Sai Sathish R, Earth Abundant Iron-Rich N-Doped Graphene Based Spacer and Cavity Materials for Surface Plasmon-Coupled Emission Enhancements. **ACS Applied Materials & Interfaces**, 8(19), 12324–12329, (2016).

Venkatesh S, Pradeep Kumar Badiya and Sai Sathish R, Purcell Factor Based Understanding of Enhancements in Surface Plasmon-Coupled Emission with DNA Architectures. *Physical Chemistry Chemical Physics*, 18, 681-684, (2016).

Venkatesh S and Sai Sathish R, Purcell Factor: A Tunable Metric for Plasmon-Coupled Fluorescence Emission Enhancements in Cermet Nanocavities. *The Journal of Physical Chemistry C*, 120(5), 2908–2913, (2016).

Kumar M A, Patnaik S G, Lakshminarayanan V and Sai Sathish R, Elecrochemical Determination of Ethanol by a Palladium Modified Graphene Nanocomposite Glassy Carbon Electrode. *Analytical Letters*, DOI:10 .1080/00032719.2016.1179746, (2016).

Mishra R K, Ramakrishna M, Mishra V, Pathak A, Rajesh S, Sharma S, Pandey A C, Nageswara Rao G and Dikshit A, Pharmaco-Phylogenetic Investigation of Methyl Gallate Isolated from Acacia nilotica (L.) Delile and Its Cytotoxic Effect on NIH3T3 Mouse Fibroblast. *Current Pharmaceutical Biotechnology*, 17(6), 540-548, (2016).

Kumar M A, Siddhardha R S S, Nived K C, Lakshminarayanan V and Sai Sathish R, Ultra-Selective Dopamine Detection in an Excess of Ascorbic Acid and Uric Acid Using Pristine Palladium Nanoparticles Decorated Graphene Modified Glassy Carbon Electrode. *Journal of The Electrochemical Society*, 162(9), H651-H660, (2015). Siddabattuni S, Akella S H, Gangula A and Patnaik S, Impedance spectroscopy studies of surface engineered TiO2 nanoparticles using slurry technique. *Bulletin of Materials Science*, 38(5), 1399-1405, (2015).

CONFERENCE PAPERS

K N S Visweswar, A Sunil and C Janardhana, Sensing Applications of Cyclic β-(1→3),(1→6)-Glucans produced by Bradyrhizobium japonicum. *Frontiers in Chemical Sciences and Technologies*, (28-29 Jan 2016), National Institute of Technology, Warangal. Frontiers in Chemical Sciences and Technologies Conference Proceedings.

Ramakrishna M, Rajesh Babu D, Meera P and Nageswara Rao G, A Validated HPLC Method for Determination of Ganoderic Acid A and Ganoderic acid B among Cultivated Indigenous Strains of Ganoderma lucidum from Different Parts of India. *National Conference on Frontiers in Chemical Sciences and Technologies*, (28-29 Jan 2016), National Institute of Technology, Warangal.

Sai Giridhar Sarma K and Nageswara Rao G, Discovery of New C-12- Substituted-14-deoxy-andrographolide Derivatives as potent anti-cancer agents. *Young Scientist Award at 16th Annual Research Awards organized by Dr. K V Rao Scientific Society*, (19 Mar 2016), Hyderabad.

Sai Giridhar Sarma K, Somanath Kundu, Avinash Bajaj, Srinivas Nanduri and Nageswara Rao G, Design, Synthesis and Anti-Proliferative Activities of new C-12substituted 3,19- di-acetyl -14-deoxyandrographolide Derivatives on HCT-116 Cancer Cell Lines. *Integrated Chemie CONference (ICCON) on Frontiers in Applied Chemistry- from Molecules to Materials*, (12-13 Feb 2016), SSSIHL, Prasanthi Nilayam, Andhra Pradesh.

Kumar M A, Patnaik S G, Lakshminarayanan V and Sai Sathish R, Palladium Decorated Graphene Nanocomposite: A Synergistic Electrocatalyst for Non-enzymatic Ethanol Determination. *Integrated Chemie CONference (ICCON) on Frontiers in Applied Chemistry- from Molecules to Materials*, (12-13 Feb 2016), SSSIHL, Prasanthi Nilayam, Andhra Pradesh.

Swayamsiddha Kar, Sahoo S K, Rajesh Babu D and Nageswara Rao G, Synthesis of Spiroketals as Potential Bioactive Agents. Integrated Chemie CONference (ICCON) on Frontiers in Applied Chemistry- from Molecules to Materials, (12-13 Feb 2016), SSSIHL, Prasanthi Nilayam, Andhra Pradesh.

Sai Manohar C and Siva Kumar B, Rationalizing a holistic Molecular Modeling route to Pharmacophore Modeling in Drug Design. *Integrated Chemie CONference* (ICCON) on Frontiers in Applied Chemistryfrom Molecules to Materials, (12-13 Feb 2016), SSSIHL, Prasanthi Nilayam, Andhra Pradesh.

Pindi JT, Srinivasan V and Sai Sathish R, Real Time Monitoring of Trace Metal lons by Surface Plasmon-Coupled Emission. Integrated Chemie CONference (ICCON) on Frontiers in Applied Chemistry- from Molecules to Materials, (12-13 Feb 2016), SSSIHL, Prasanthi Nilayam, Andhra Pradesh.

Srinivasan V and Sai Sathish R, Modified Solution Deposition of Continuous Silver Thin Film for Plasmonic Waveguide Applications. *Integrated Chemie CONference (ICCON) on Frontiers in Applied Chemistry- from Molecules to Materials*, (12-13 Feb 2016), SSSIHL, Prasanthi Nilayam, Andhra Pradesh.

Sai Praneeth T, Pradeep Kumar B, Siva Kumar B, Praveen V V and Sai Sathish R, Synergistic Combination of Macro-micro Fungal Cultures for Enhanced Cellulolytic Enzymes Production and Biomass Structural Changes Characterization. *Bioprocessing INDIA 2015*, (17-19 Dec 2015), Institute of Chemical Technology-Madras, Chennai.

Pradeep Kumar B, Sai Praneeth T, Siva Kumar B, Praveen V V and Sai Sathish R, Endophytic Fungi from Aegle Marmelos Plant for Cellulolytic Enzymes Production using Solid State and Submerged Fermentation. *Bioprocessing INDIA 2015*, (17-19 Dec 2015), Institute of Chemical Technology-Madras, Chennai.

Badiya P K, Pindi J T, Srinivasan V and Sai Sathish R, Silver-Graphene Oxide Nanocomposite: A Novel Plasmonic Spacer. **Bangalore India Nano 2016**, (3-5 Mar 2016), Bangalore.

Venkatesh S, Pradeep Kumar Badiya, Tejkiran P J and Sai Sathish R, Mobile Phone Based Next-gen Plasmonics. Poster - Walkway of Discovery, *Bangalore India Nano 2016*, (3-5 Mar 2016), Bangalore.

Srinivasan V, Vernekar D, Jaiswal G, Jagadeesan D and Sai Sathish R, Magnetic Nanoparticles as Spacers for Tunable Enhancements in Surface Plasmon-Coupled Emission. *International Conference on Nanoscience and Nanotechnology*, (29 Feb to 2 Mar 2016), IISER, Pune.

Chelli Sai Manohar and Siva Kumar B, Rationalizing a Holistic Molecular Modeling Route to Pharmacophore Modeling in Drug Design. **103**rd Indian Science Congress, (3-7 Jan 2016), University of Mysore.

Ganesh K M, J S Bhargav, Sai Sathish Ramamurthy and Chelli Janardhana, Geospatial Mapping of Water Quality as an Effective Tool for Water Resource Management. *International Conference On Water: From Pollution to Purification*, (12-15 Dec 2015), School of Environmental Sciences, Mahatma Gandhi University, Kottayam.

A Sunil, Synthesis of Novel Ice Crystallization Inhibition Polymers for Tissue Engineering. JAIST-SSSIHL Collaborative Workshop on Science and Technology: Scientific Association for Innovation, Sponsored by Sakura Exchange Program in Science, (29 Jul 2015), Japan Advanced Institute of Science and Technology (JAIST), Satellite Campus, Tokyo, Japan.

Pradeep Kumar B, Sai Sathish R, Kaneko Tatsuo, Development of Super Absorbent Materials. *JAIST-SSSIHL Collaborative Workshop on Science and Technology: Scientific Association for Innovation*, Sponsored by *Sakura Exchange Program in Science*, (30 Jul 2015), Japan Advanced Institute of Science and Technology (JAIST), Satellite Campus, Tokyo, Japan.

Venkatesh S, Sai Sathish Ramamurthy and Yuki Nagao, Evaluation of Proton Transport materials. *JAIST-SSSIHL Collaborative Workshop on Science and Technology: Scientific Association for Innovation,* Sponsored by *Sakura Exchange Program in Science,* (30 Jul 2015), Japan Advanced Institute of Science and Technology (JAIST), Satellite Campus, Tokyo, Japan.

K M Ganesh, Raman Vedarajan, Noriyoshi Matsumi and Chelli Janardhana, Developing a Novel Fluoride Ion Sensor and Fluoride Removing Composite Material. *JAIST-SSSIHL Collaborative Workshop on Science and Technology: Scientific Association for Innovation,* Sponsored by *Sakura* **Exchange Program in Science,** (30 Jul 2015), Japan Advanced Institute of Science and Technology (JAIST), Satellite Campus, Tokyo, Japan.

Santosh B, Zheqiong Wu, Sai Siddhartha R, Krishna Prasad G, Somenath Mitra and Rajesh Babu D, Green Engineered Ruthenium Decorated Carbon Nanotubes as Highly Active Catalysts in Hydrogen Evolution Reaction. *International conference on Nanoscience, Nanotechnology and Advanced materials,* (14-17 Dec 2015), GITAM university, Vishakhapatnam.

Biosciences

JOURNAL PAPERS

K N Naresh, Arun Sreekumar and S S Rajan, Structural Insights into the Interaction between Molluscan Hemocyanins and Phenolic Substrates: An *in silico* Study using Docking and Molecular Dynamics. *Journal of Molecular Graphics and Modelling*, 61, 272-280, (2015).

Naresh K N, Arun Sreekumar and Rajan S S, Studies using Molecular Dynamics Reveal Mechanism of Interaction of Hemocyanin with Phenolic Substrates. *Albany 2016: The 19th Conversation*, State University of New York, Albany, New York, USA, Journal of Biomolecular Structure and Dynamics, 33 sup., 29-30, (9-13 Jun 2015).

Pratima Tripathi, Flouride Laden Water's Negative Skeletal Effect. *International Journal of Clinical and Biological Sciences*, 2(4), 1-13, (2015).

Pratima Tripathi, Homocysteine-The Hidden Factor and Cardiovascular Disease: Cause or Effect? *Biochemistry & Analytical Biochemistry*, 4(4), 237-242, (2015).

Pratima Tripathi, Endocrinological Aspects of Cardiovascular Disorders. *World Journal of Pharmacy and Pharmaceutical Sciences*, 5(2), 447-462, (2016).

Niranjana Mahalingam, Bhavani Manivannan, Sudhir Jadhao, Gayathri Mishra, Pravin Nilawe and Pradeep B E, Draft Genome Sequences of Two Extensively Drug-resistant Acinetobacter Baumannii Strains Isolated from Pus Samples. *Genome Announcements*, 4(2), e00161-16, (2016). Bhavani Manivannan, Niranjana Mahalingam, Sudhir Jadhao, Amrita Mishra, Pravin Nilawe and Pradeep B E, Draft Genome Sequence of a Clinically Isolated Extensively Drug-resistant Pseudomonas Aeruginosa Strain. **Genome Announcements**, 4(2), e00162-16, (2016).

Vishwanathan A S, Devkota Ranjan Siva Sankara Sai S Rao Govind, DREAM Assay for Studying Microbial Electron Transfer. **Applied Biochemistry and Biotechnology**, 177(8), 1767-1775. http://www.ncbi.nlm.nih. qov/pubmed/26386586, (2015).

Vishwanathan A S, Siva Sankara Sai S and Rao Govind, The Oxygen Paradox in Microbial Fuel Cells. *Current Science*, 109(8), 1390-1391, (2015).

Venketesh S and Samuel Fountain, Evidence for Extracellular ATP as a Stress Signal in a Single Celled Organism. *Eukaryotic cell*, 14, 775-782, (2015).

CONFERENCE PAPERS

Pratima Tripathi, Association of NOXes Affliction with Cardiovascular Diseases. International Conference ICBNP-2015; on Biochemistry, Nutrition and Pharmacy in Human Welfare: Recent Trends and Future Challenges, (3-5 Sep 2015), Dept. of Biochemistry, University College of Science, Osmania University, Hyderabad.

Pratima Tripathi, Endocrinological Mechanism of Insulin Resistance and Cardiovascular Diseases. 26th All India Congress of Zoology (AICZ) & International Symposium on innovation in Animal Sciences for Food Security, Health Security and Livlihood-2015, (29-31 Oct, 2015), Babasaheb Bhimrao Ambedkar University, Lucknow.

Pratima Tripathi, Homocysteine - The Hidden Factor and Cardiovascular Disease: Cause or Effect? 3rd Lucknow Science Congress LUSCON 2015 & National Conference on Science for Society an Interdisciplinary Approach, (31 Oct-2 Nov 2015), Babasaheb Bhimrao Ambedkar University, Lucknow.

Pradeep B E, Bhavani Manivannan, Niranjana Mahalingam, Mayur Divate, Sudhir Jadhao and Valakunja Nagaraja, Elizabethkingia meningoseptica, an Emerging Opportunistic Pathogen Involved in Diverse Human Infections. *MCB75*, (11-14 Dec

2015), Indian Institute of Science, Bangalore.

Bhavani Manivannan, Niranjana Mahalingam, Seema Chawla, P. Abhishek Rao, Shivakiran S Makam and Pradeep B E, Analysis of MDR Pseudomonas Aeruginosa Outbreak at Sri Sathya Sai Institute of Higher Medical Sciences, Prasanthigram, India. **COMB 2016 - Conference on Microbial Biofilms**, (29-30 Jan 2016), Sastra University, Tanjavur, Tamil Nadu.

Vishwanathan A S, Aiyer K S, L A Avinash Chunduri, A Sunil, S Siva Sankara Sai and Venkataramaniah K, Carbon Nanodots Enhance Microbial Fuel Cell Performance. *Recent Advances in Nanoscience and Technology (RAINSAT - 2015)*, (8-10 Jul 2015), Satyabama University (in association with Central Leather Research Institute), Chennai.

Aiyer K S Vijayakumar B S Vishwanathan A S, Factors Affecting Electroactivity of Biofilms. **Conference on Microbial Biofilms**, (28-29 Jan 2016), SASTRA University, Thanjavur.

Vishwanathan A S Aiyer K S Siva Sankara Sai S Rao Govind, Novel High-throughput Sensing Platform for Screening Microbial Fuel Cell Components. **26th Anniversary World Conference on Biosensors**, (25-27 May 2016), Gothenburg, Sweden.

Kartik Aiyer, B S Vijayakumar, Roshan Rai, A.S. Vishwanathan, Assessing Performance of Microbial Fuel Cells using DREAM Assay. **Association of Microbiologists of India Conference**, (07-10 Dec 2015), New Delhi.

Food and Nutritional Sciences

JOURNAL PAPERS

Shobha RI and Andallu B, Phytoconstituents and Antimicrobial Activity of Aniseeds (*Pimpinella anisum L.*). *Ewemen Journal of Microbial Research*, 1(2), 1-5, (2015).

Shobha RI and Andallu B, Radical Scavenging and Antiperoxidative Efficacy of Aniseeds (*Pimpinella anisum L*.): Identification of phytoceuticals. *Pharmaceutical and Biological Evaluations*, 2(5), 197-203, (2015).

Rajeshwari CU and Andallu B, Bioactive

phytoconstituents in methanolic extract and ethyl acetate fraction of methanolic extract of coriander (*Coriandrum sativum L.*) seeds. *Annals of Phytomedicine*, 4(2), 71-76, (2015).

Shobha RI and Andallu B, Phytoceuticals in Aniseeds: A Practical Approach for Isolation and Identification. *International Journal of Bioassays*, 5, 4701-4705, (2016).

Sudha Rani K and Srividya N, Effect of Inulin, Fructooligosaccharides and *L. acidophilus* in Formulating a Synbiotic Yogurt. *Asian Journal of Dairy and Food Research*, 35(1), 37-40, (2016).

CONFERENCE PAPERS

Jyotishree R and Meera M, Shelf Life Studies of Flax Seed Flour Incorporated Soup Mixes. *47th National Conference on Nutrition and Agriculture – The Connect and Disconnect*, (9-10 Oct 2015), National Institute of Nutrition, Indian Council of Medical Research, Jamai-Osmania PO, Hyderabad.

Vimalakumari D and Meera M, Formulation and Development of Green Leafy Vegetable Incorporated Papad. *47th National Conference on Nutrition and Agriculture*– *The connect and Disconnect*, (9-10
Oct 2015), National Institute of Nutrition, Indian Council of Medical Research, Jamai-Osmania PO, Hyderabad.

Andallu B, Natural Remedies for Stress-induced Diseases (Diabetes, Cancer and Inflammatory diseases), *National Symposium on prospects and potentials in medicinal and aromatic plants*, (19 Dec 2015), Dept. of Botany, Government College, Anantapur, Andhra Pradesh (in collaboration with Science Tech Foundation, Bangalore).

Shobha RI and Andallu B, Bioassay Guided Isolation of Phytoceuticals with Special Reference to Luteolin-6c-Glucoside from Aniseeds (*Pimpinella anisum* L.). *National Symposium on Prospects and Potentials in Medicinal and Aromatic plants*, (19 Dec 2015), Dept. of Botany, Government College, Anantapur, Andhra Pradesh (in collaboration with Science Tech Foundation, Bangalore).

Ghoora M D and Srividya N, Nutraceutical Potential of Fenugreek Microgreens: Phytochemicals and Antioxidant Activity. **National Symposium on Prospects and Potentials in Medicinal and Aromatic** *plants*, (19 Dec 2015), Dept. of Botany, Government College, Anantapur, Andhra Pradesh (in collaboration with Science Tech Foundation, Bangalore).

Sai Ramya A and Meera M, Utilization of Dehydrated Cauliflower Leaves. *National Symposium on prospects and Potentials in Medicinal and Aromatic Plants*, (19 Dec 2015), Dept. of Botany, Government College, Anantapur, Andhra Pradesh (in collaboration with Science Tech Foundation, Bangalore).

Anita T and Meera M, Physical and Sensory Attributes of Banana Flour Supplemented Cookies. *National Symposium on prospects and Potentials in Medicinal and Aromatic Plants*, (19 Dec 2015), Dept. of Botany, Government College, Anantapur, Andhra Pradesh (in collaboration with Science Tech Foundation, Bangalore).

Gayathri S and Meera M, Millet Based Cookies with Green Leafy Vegetables - Spinach (Spinacia oleracea) and Mint (Mentha arvensis). National Symposium on prospects and Potentials in Medicinal and Aromatic Plants, (19 Dec 2015), Dept. of Botany, Government College, Anantapur, Andhra Pradesh (in collaboration with Science Tech Foundation, Bangalore).

Meera M and Savitha R, Value Addition with Wonder Plant, *Nelumbium nucifera*. *National Symposium on prospects and Potentials in Medicinal and Aromatic Plants*, (19 Dec 2015), Dept. of Botany, Government College, Anantapur, Andhra Pradesh (in collaboration with Science Tech Foundation, Bangalore).

Sumana A and M Aruna, Potential Application of Agathi (*Sesbania grandiflora*) Leaves as Source of Nutraceuticals in the Formulation of Functional Food. *National Symposium on prospects and Potentials in Medicinal and Aromatic Plants*, (19 Dec 2015), Dept. of Botany, Government College, Anantapur, Andhra Pradesh (in collaboration with Science Tech Foundation, Bangalore).

BOOKS

Krishnashree V and Andallu B, **Phytochemicals and Antioxidant Potential of Vanilla Pods and Essence**. LAMBERT Academic Publishing GmbH & Co. (Germany). ISBN: 978-3659799778, (2015).

Management & Commerce

JOURNAL PAPERS

Prachi Satapathy and Swetha Thiruchanuru, A Critical Analysis of Behavioral Finance. International Journal of Research in Social Sciences, ISSN:2249-2496, 6(5), 57-58, (2016).

Swetha Thiruchanuru, Strengthen the Small to Strengthen the Nation: Insights on HR Issues in SMEs. *International journal of Business Management and Economic research (IJBMER)*, 7(2), 579-587, (2016).

Vidyasagar Mani Thota and B Sai Giridhar, Impact of Foreign Presence on Capital Structure of Four Wheeler Companies in India. *The IUP Journal of Entrepreneurship Development*, ISSN: 0973-2659, (2016).

Daksh Seth, B Sai Giridhar and Sundara Krishnaswami, Impact of Crude Oil Price Changes on Select Indian Industries. *International Journal of Social Sciences and Management*, 3(2), 87-92, (2016).

Chandrasekhar B, Factors That Act as Enablers or Roadblocks to Saving by the Poor - A Study Based in South India. *International Journal of Management and Development Studies*, 4(2), 198-210, (2015).

Chandrasekhar B, Predicting regular saving behavior of the Poor using Decision Trees - An Important Input to Financial Inclusion in India. *Scholedge International Journal of Management and Development*, 2(8), 16-30, (2015).

Chandrasekhar B and and Anantharaman A, Microsavings - A Neglected Pillar of Microfinance: Does Literacy Influence the Saving Preferences of Poor Women? *Journal of Contemporary Research in Management*, 10 (1), 17-30, (2015).

Sai Satya Narayana V, Subramanian S, Suriyanarayanan V, Bank Bankruptcy Prediction Using Machine Learning Algorithms. *International Journal of Management, IT and Engineering*, 6, (2 Jun 2016), 27-42, (2016).

Tejas Hegde, and Subramanian S, A Study of the Risk Management Practices of Banks in India. *International Journal of Management and Social Sciences Research*, 5, (2 Feb 16), 46-52, (2016).

M Guru Santosh & Prakash Sharma V N, Interest Rate Risk Management: A Comparative Study of State Bank of India and HDFC Bank. *International Journal of Science Technology and Management*, 5(1), (2016).

M Guru Santosh & Prakash Sharma V N, Interest Rate Risk Management: A Comparative Study of Bank of Baroda and ICICI Bank. *IOSR Journal of Economics and Finance (IOSR-JEF)*, Ver. 3, 7(1) 1-4, (2016).

M Guru Santosh & Prakash Sharma V N, Interest Rate Risk Management: With Special Reference to State Bank of India. International Journal of Management and Social Sciences Research (IJMSSR), 5 (2), (2016).

Sai Sudha Nunna and Ch Radhakumari, A cost-effective ERP formulation – A prototype for small enterprises. International Journal of Management and Applied Science (IJMAS), 2(1), 132-137, (2015).

Aditya G and Desai R, Pricing Efficiency and Price Discovery of Indian Equity ETFs. *The Journal of Index Investing*, 6(3), 67-79. N Sivakumar (2015) The Role of HR and Communication Practices in the Insurance Industry – Management Lessons for Excellence. *IRDA Journal*, 4-6, (2015).

K J Srinivas and Sanjay Mahalingam, Lean Strategies at Sri Sathya Sai Institute of Higher Medical Sciences. *The International Journal of Business & Management*, 4 (2), 237-244, (2016).

G Padmavathy , Jaya Jaiswal, Performance Evaluation of Leading Commercial Banks Using CAMEL Model. *International Journal of Research in Social Sciences IJRSS-ISSN:* 2249-2496, 6(5), (2016).

G Padmavathy Sheenum Bajaj, A Study on Factors Affecting E-Commerce Adoption by SMEs in Delhi. *Advances in economics and Business Management - ISSN-2394-1545*, 2(14), 1400-1403, (2015).

G Padmavathy Shanthi latha Donger, CSR- An Initiation for an Era Sustainable Development. *Advances in economics and Business Management - ISSN-2394-1545*, 2(14), (2015).

A Sudhir Bhaskar and Amey Deshpande, Importance of Strategic Planning in SMEs. **Asian Journal of Multidimensional Research (AJMR)**, 5(7), 2278-4853, (2016).

CONFERENCE PAPERS

Monil Khatri and B Sai Giridhar, More Water for Irrigation. *International Conference on Innovations in Sustainable Water & Wastewater Treatment Systems*, (21-23 Apr 2016), Pune.

N Jayaprada, Impact of Globalisation on Human Rights. *Human Rights - Trends and Issues,* (9-10 Nov 2015), Organized by School of Social Sciences, KSN Degree College, Anantapur, Andhra Pradesh.

N Jayaprada, Backflush Costing – An Innovative Inventory and Production Management Technique. *UGC National Seminar on Creativity and Innovation in Management*, (29-30 Nov 2015), Sri Krishnadevaraya Institute of Management, S K University, Anantapur, Andhra Pradesh.

Krithika & N Jayaprada, Living Conditions of Workers in B & K Area, CCL. 4th International Conference on Managing Human Resources at the Workplace, (4-5 Dec 2015), Shri Dharmasthala Manjunatheshwara Institute for Management Development (SDMIMD), Mysore. ISBN 978-93-83302-07-9.

N Janani and N Jayaprada, Re Engineering. *Creativity and Innovation in Management*, (29-30 Nov 2015), Sri Krishnadevaraya Institute of Management, S K University, Anantapur, Andhra Pradesh.

Sai Sudha Meegada and N Jayaprada, Green Buildings. *Creativity and Innovation in Management*, (29-30 Nov 2015), Sri Krishnadevaraya Institute of Management, S K University, Anantapur, Andhra Pradesh.

Sumit Agarwal and Deepak Anand, Finding Intrinsic & Extrinsic Value of a Firm Using Big Data. **2nd International Conference on Big Data & Analytics for Business**, (2015), New Delhi.

R R Raghavan, S Subramanian and R Prabhakar Rao, Assessing Value at Risk in Emerging Markets: A Disaggregated Study. *XII International Conference on Business and Finance*, (10-11 Jun 2016), IBS Hyderabad.

Sai Sudha Nunna and Ch Radhakumari,

A Cost-Effective ERP Formulation – An Epitome for Small Enterprises. *International Conference on Computer Science, Software, Networking and Information Technology (ICCSSNIT-15)*, (7-8 Nov 2015), Singapore. http://www.ijmas.iraj.in. (Won 'Excellent Paper' Award).

Sai Sharanya and Ch Radhakumari, Linear Programming Technique and Goal Optimization: A Case Study of Ice Cream Manufacturing Unit. *ICMCS 2015 --International Conference on Mathematics and Computer Science*, (10-11 Nov 2015), Vienna, Austria. http://mathematics. conference-site.com/

Akanksha Madhok and Ch Radhakumari, Empowerment of Rural Citizens – A Ray of Hope in Financial Inclusion implementation. Business, Economics, and Social Science & Humanities- BESSH-2015, (2-3 Nov 2015), Sea View Langkavi, Malaysia. http://academicfora.com/bessh-langkavi -November-15/

T R Rajeswari, Green Accounting – A Signal to Nations to Move Away from Illusory Development and March towards Sustainable Growth. *4th International Conference on Emerging Trends in Finance & Accounting - Global Recovery: India Story*, (21-22 Aug 2015), Shri Dharmasthala Manjunatheshwara Institute for Management Development (SDMIMD), Mysore. ISBN: 978-93-83302-09-3.

T R Rajeswari, Healthy Power and Corporate Success - A Vedantic View. *4th International Conference on Managing Human Resources at the Workplace*, (4-5 Dec 2015), Shri Dharmasthala Manjunatheshwara Institute for Management Development (SDMIMD), Mysore. ISBN 978-93-83302-07-9.

Lakshmi and T R Rajeswari, Financial Wellbeing - Looking Back and Forth:
A Study on Bank Officers in South Chennai. 4th International Conference on Managing Human Resources at the Workplace, (4-5 Dec 2015), Shri Dharmasthala Manjunatheshwara Institute for Management Development (SDMIMD), Mysore. ISBN 978-93-83302-07-9.

Supriya and T R Rajeswari, Opted Out or Pushed Out? A Study on the Vanishing Number of Women Professionals in Indian Corporates. *4th International Conference on Managing Human Resources at* *the Workplace,* (4-5 Dec 2015), Shri Dharmasthala Manjunatheshwara Institute for Management Development (SDMIMD), Mysore. ISBN 978-93-83302-07-9.

Manisha Pradhan and T R Rajeswari, Indian Shrimp Industry: Drift from Blue Revolution to Red Revolution. *2nd International Conference on Fisheries and Aquaculture 2015*, (25-27 Aug 2015), The International Institute of Knowledge Management, Colombo, Sri Lanka.

M Pushpa, Impact of Modern Teaching Aids in Improvising Teachers' Caliber in Current Education Systems with Specific Reference to Management Teaching. *National Conference On Pragmatic Approached and Quality Initiatives for Enhancing Teachers Caliber in Business Education*, (6 Jun 2015), R V Institute of Management, Bangalore.

N Sivakumar, The Linkage between Empathy Learning and Social Consciousness – Evidence from a Game Theory Based Experimental Study. *International Conference on Consciousness, Cognition and Culture – Implications for the 21st Century*, (9-11 Dec 2015), Organized by National Institute of Advanced Studies (NIAS), Bangalore.

Gurung Deepa and Uppalury Suma, Smart Cities-The Indian Way. *International Conference on Global Economic Growth and Sustainability- Prospects and Challenges*, (20-21 Nov 2015), Shri Dharmasthala Manjunatheshwara Institute for Management Development, Mysore.

Harsha Rathor and Uppalury Suma, How Diverse is the Gender Diversity at the Work Place? 4th International Conference on Managing Human Resources at the Workplace, (4-5 Dec 2015), Shri Dharmasthala Manjunatheshwara Institute for Management Development, Mysore.

Unnikrishnan Veena and Uppalury Suma, Payment Banks- An Initiative Towards a Paradigm Shift. *National Conference on Retail Credit-Issues, Challenges, and Redressal Mechanisms*, (31 Oct 2015), Vishakapatnam Gitam University.

U Divya and Kirti Kiran, Assessing the Service Quality of Banks; An Empirical Study of Public and Private Sector Banks in Kerala, Kottayam District. *Innovative Managemnet Practices in Marketing, Ecommerce, Economics, Business, Banking, Neo-* **Tourism**, (29 Nov 2015), Jawahar Lal University, New Delhi.

K Subhashree and Vyshnavidevi B, A Study on Competency Mapping in KCP Ltd, Chennai. *International Conference on Managing Human Resource at the Workplace*, (4-5 Dec 2015), Shri Dharmasthala Manjunatheshwara Institute for Management Development, Mysore. ISBN: 978-93-83302-07-9.

Sai Krishnam Naidu and Akanksha Aggarwal, Dr. W Edward Deming and Performance Appraisal: Application in Current Times- A Study on the Indian Defense Services. *4th International Conference On Managing Human Resources at the Workplace*, (4-5 Dec 2015), Shri Dharmasthala Manjunatheshwara Institute for Management Development, Mysore.

Mopati Hemalatha and Akanksha Aggarwal, A Conceptual Framework Embedding Food and Tourism: Agroculinary Tourism as a Rural Development Strategy. *TIIKM's 3rd Annual International Conference on Hospitality and Tourism Management*, (5-6 Nov 2015), Colombo, Sri Lanka.

G Padmavathy, Organizational Climate and its Influence upon Performance: A Study in BSNL. *4th International Conference on Managing Human Resources at the Workplace*, (4-5 Dec 2015), Shri Dharmasthala Manjunatheshwara Institute for Management Development, Mysore. ISBN: 978-93-83302-07-9.

CHAPTERS IN BOOKS

N Sivakumar, The Role of Spirituality in Creating Moral Corporate Cultures, Chapter 18 in The Power of Mind and Managerial Decision Making, Volume 5 of Compendium on Integrating Spirituality and Organisational Leadership. Edited by Sunita Singh Sengupta, ISOL Publications, New Delhi. 2016, pp185-196, ISBN: 978-93-85355-04-2.

N Sivakumar and U S Rao, Values Based Entrepreneurship through Service Orientation: Guidelines from Indian Ethos, Chapter 19, in Models of Economic Development- Rediscovering the Indigenous Knowledge, Vol 7 of Compendium on Integrating Spirituality and Organisational Leadership. Edited by Sunita Singh Sengupta, ISOL Publications, New Delhi. 2016, pp200-208, ISBN: 978-93-85355-06-6.

Economics

JOURNAL PAPERS

Paramanik R N and Jyothi Ch, Nexus between Financial Development and Economic growth in Selected Asia: A Post 1997 Crisis Analysis. *AIMS Journal, USA*, 10(3), 101-111, (2016).

B C Sutradhar and R Prabhakara Rao, Inferences in Longitudinal Count Data Models with Measurement Errors in Time Dependent Covariates. *Sankhya: The Indian Journal of Statistics, Series B,* 1-27, (2015).

Anvesh Dhagat and Raghavender Raju G, Measurement of Foreign Exchange Exposure for Selected Indian Firms. *Amity Journal of Finance*, 1(1), (2016).

Ankush Sharma and Raghavender Raju G, Exchange Rate Pass-Through in India: A Post-Reform Period Analysis. *Journal of Economic Policy and Research*, 1, (2016).

Raghavender Raju G and V Pandit, An Analysis of India's Trade Flows: During the Post-Reform Period. *Journal of International Economics*, 1(1), (2016).

Rajbhushan J Nayak and V Pandit, GDP Growth and Public Debt: Alternative Scenarios. *Journal of Economic Policy & Research*, (2016).

Siva Kiran Guptha K, Prabhakar Rao R, The Volatility Behavior of Emerging BRICS Stock Markets. *Emerging Market Finance*. Accepted for publication, (2015).

Siva Kiran Guptha K, Prabhakar Rao R, An Empirical Analysis of Growth and Threshold Inflation in India. *Indian Journal of Economics and Development*. Accepted for publication, (2016).

Siva Kiran Guptha K and Sai Pranav, The Determination of Exchange Rate in India: An Empirical Investigation. **South Asian Journal of Management Research**. Accepted for publication, (2016).

K U Gopakumar and V Pandit, Price Movements for Rice and Wheat: A Structuralist Policy Perspective. *Indian Economic Review*, 49(2) 227-244, (2014).

CONFERENCE PAPERS

M R Geetha Bala, Financial Literacy's Impact on Financial Inclusion. *National Conference on Emerging Trends in Business Paradigm*, (22-23 Feb 2016), Shikshana Prasaraka Mandali's Sir Parashurambhau College, Pune. ISBN: 978-93-5158-594-7. Printed and Published by Success Publications (pp164-167).

Karan S Khera and Raghavender Raju G, Fuelling the Country: Crude Oil and Indian Economy. *Indian Economy: Emerging Trends and Challenges*, (10 Aug 2015), Dept. of Economics, SSSIHL, Prasanthi Nilayam, Andhra Pradesh.

Prashant MP and Raghavender Raju G, FDI in India & China: An Institutional Approach. *Indian Economy: Emerging Trends and Challenges*, (10 Aug 2015), Dept. of Economics, SSSIHL, Prasanthi Nilayam, Andhra Pradesh.

Dhruv Vyas and Raghavender Raju G, Service Sector Growth in India. *Indian Economy: Emerging Trends and Challenges*, (10 Aug 2015), Dept. of Economics, SSSIHL, Prasanthi Nilayam, Andhra Pradesh.

Siva Kiran Guptha K, Prabhakar Rao R, Volatility Experience Among the BRIC Stock Markets. *The 7th RMUTP International Conference on Science*, (23-24 Jun 2016), Technology and Innovation for Sustainable Development, Thailand.

Education

CONFERENCE PAPERS

Madhu Kapani, Innovative Teaching and Learning Methods. *Strategies to Enhance Relevance of Higher Education*, (14 Dec 2015), IQAC & JKC, Government Degree College, Uravakonda, Andhra Pradesh.

P Lavanya, Technology and Facilities for Effective Teaching and Learning. *Innovative* and *Creative Teaching, Learning & Evaluation Methods*, (6-7 Aug 2015), SVGM Govt. Degree College, Kalyandurg, Andhra Pradesh.

P Lavanya, Human Rights Education. *Human Rights: Trends and Issues*, (9-10

Dec 2015), KSN Government Degree College for Women, Anantapur, Andhra Pradesh.

Neetu Gupta, Human Rights: Role of Education. *Human Rights: Trends and Issues*, (9-10 Dec 2015), KSN Government Degree College for Women, Anantapur, Andhra Pradesh.

Neetu Gupta, Fostering critical thinking, Creativity and Scientific Temper. *Innovative and Creative Teaching, Learning & Evaluation Methods*, (6-7 Aug 2015), SVGM Govt. Degree College, Kalyandurg, Andhra Pradesh.

Neetu Gupta, Peer Learning. **Strategies to Enhance Relevance of Higher Education**, (14 Dec 2015), IQAC & JKC, Government Degree College, Uravakonda, Andhra Pradesh.

English Language and Literature

JOURNAL PAPERS

P S Gayathri and P L Rani, Book Review: The Narrow Road to the Deep North by Richard Flanagan. *Transnational Literature*, 8(10), (Nov 2015)

Srinivas S, Polish Yers in Harmonic Serialism. *The EFL Journal*, 7(1), 47-71, (2016).

Al-Oshari Waleed, Kashav Pushpa and Srinivas S, Prosodically-driven Constraint Reranking in Optimality Theory. *EFL (formerly CIEFL) Occasional Papers in Linguistics*, 17, 45-69, (2015).

CONFERENCE PAPERS

Lalitha Sarma R and Rajeshwari C Patel, Ambiguity and Ambivalence in Lessing's The Golden Notebook. *Protean Frames: International Conference on Contemporary Discourses of Gender*, (12-13 Jan 2016), Christ University Main Campus, Bangalore.

Rajeshwari C Patel and Swathi Metla, Defreezing Empathy as Redemption. National Conference on Media, Culture and Community: Contemporary Perspectives and Practices (PU-ACT- **TNP-2016)**, (29-30 Mar 2016), Pondicherry, Tamil Nadu.

Rani P L, Unbiased Lingo- Can the Media Claim Neutrality? *Contemporary Research in English Studies: Global Perspectives*, (4-6 Feb 2016), Waymade College of Education, Vallabh Vidyanagar, Gujarat.

Siddhartha R, Cricket as a Tool to Decolonize the Mind. **Contemporary Research in English Studies: Global Perspectives**, (4-6 Feb 2016), Waymade College of Education, Vallabh Vidyanagar, Gujarat.

Divya Goyal, Ibsenian Characters as Products, Participants and Progressive Agents in a Society. **Contemporary Research in English Studies: Global Perspectives**, (4-6 Feb 2016), Waymade College of Education, Vallabh Vidyanagar, Gujarat.

B Venkataramana, Language study through Literature- Adding Cultural Grammar to the Learners. *International Conference on Advances in English Studies and Women Empowerment*, (21-22 Aug 2015), K L University, Guntur.

B Venkataramana, Okonkwo-The tornado on the war path in chinua Achebe's "Things Fall Apart". In *UGC Global Seminar On Celebrating the Ancient/Contemporary Wisdom of Fourth World*, (14-16 Dec 2015), Acharya Nagarjuna University, Guntur.

B Venkataramana, The Black Thief and the Jewish Gaze in Saul Bellow's, Sammler's Planet. *International Conference on Transnational Approach to Literary Studies*, (27-28 Jan 2016), Anna Adarsh College for Women, Chennai.

BOOKS

B Venkataramana, *Protagonists in Saul Bellows Fiction*. SBW Publishers. (New Delhi). ISBN: 978-81-85708-63-8, (2015).

B Venkataramana, *Nissim Ezekiel's Poetry-A Thematic Study*. Scholar Press (Germany). ISBN: 978-3-639-76790-2, (2015).

Sub-departments and other Languages

JOURNAL PAPERS

Hindi

Kiron Bala Arora, Varnabheda Evam Shri Naresh Mehta Ji Ka Kavya 'Shabari'. **Sankalya**, Quarterly's 44th Year (Jan-Mar), 74-77, (2016).

Piyush Kumar Shrivastava, Hamsna. **Samkalya**, Varsh44 Amk 1 (Jan-Mar), 104, (2016).

Telugu Language & Literature

M Praphulla, Manucharithra -Sanghikaviluvalu. *Journal of Indian Languages and Literature (JOILL), ISBN: 978-1-5330-3849-4*, 1(2), 54 - 58, (2016).

CONFERENCE PAPERS

Philosophy

Sharada Subramaniam, Kierkegaard on the significance of Religious Knowledge.

International Dharma-Dhamma Conference - Harmony of Religions – Welfare of Humankind, (24-26 Oct 2015), Indore, Madhya Pradesh.

M Venkatalakshmi, Atmanubhava - the Highest Aesthetic Delight. **Samskrute Bharatita Kalayaha Saundarsya cha Tattvam**, (26-28 Sep 2015), Benaras Hindu University, Varanasi, Uttar Pradesh.

Hindi

Kiron Bala Arora, Bhartiya Hindi Sahitya Mein Sabhyata Aur Sanskruti. *Heritage and Culture in Indian Literature*, (24-25 Mar 2016), SUV, Tirupati, Andhra Pradesh.

Telugu Language & Literature

M Praphulla, Sreerasthu kathasamputi - Oka Anuseelana. *Ravoori Bharadvaja Sahithee Vaisishtyam*, (21-22 Aug 2016), Sree Varra Chennareddy Govt. Degree College, Palamaneru. Published in the proceedings, pp183-189, ISBN No: 978-81-931212-3-8.

M Praphulla, Sreemadvaalmiki Ramayane Bhavachithraani. *International Seminar* on Samskruthe Bharatheeya kalayaha soundaryam cha tattvam, (26-28 Sep 2015), Banaras Hindu University, Varanasi.

M Praphulla, Sivamahimnastothre Sivatattvam. *International Seminar on Sivatattva in Sanskrit Literature*, (7-9 Feb 2016), Shree Somanath Sanskrit University, Gujarat.

BOOKS

Sanskrit

N Venkatesha Rao, *Sarvasamaqrpana Gadya*. Pavana Parimala Prasarini Trust (Bangalore), (2015).

N Venkatesha Rao, *Brihati Sahasra Pradeepah*. Hayagreeva Prakashana (Bangalore), (2015).

ARTICLES

N Venkatesha Rao, Indriyani Hayani. *Sarvamoola*, (Jul) 13(7), 22-23, (2015).

N Venkatesha Rao, Parayanah. *Mukhyaprana*, (Jul) 7(7), 7-12, (2015).

N Venkatesha Rao, Sulabha Sopana. *Mukhyaprana*, (Aug) 7(8), 7-10, (2015).

N Venkatesha Rao, Dukha parayanah. *Mukhyaprana*, (Sep) 7(9), 9-12, (2015).

N Venkatesha Rao, Ko Vijayee Bhavet. **Sarvamoola**, (Nov) 13(11), 13-14, (2015).

N Venkatesha Rao, Dushtashva Iva Saratheh. **Sarvamoola**, (Dec) 13(12), 19-20, (2015).

N Venkatesha Rao, Naika Shrugo Gadagrajah. *Mukhyaprana*, (Dec) 7(12), 15-19, (2015).

N Venkatesha Rao, Priyakruth Preetivardhanah. *Mukhyaprana*, (Jan) 8(1), 14-18, (2016).

N Venkatesha Rao, Yuktena Masa Sada. **Sarvamoola**, (Jan) 14(1), 19-20, (2016).

N Venkatesha Rao, Yatha Gurustatha Shishyah. *Sarvamoola*, (Apr) 14(4), 22-23, (2016).

N Venkatesha Rao, Yastu Avijnanavan. *Sarvamoola*, (May) 14(5), 16-17, (2016).

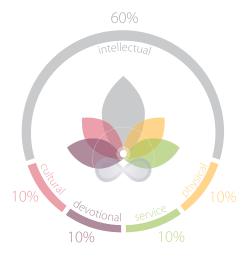
N Venkatesha Rao, Chintana Kavaca. *Mukhyaprana*, (Jun) 8(6), 8-13, (2016).





OTHER ACTIVITIES & EVENTS

These dimensions of Integral Education at SSSIHL help students develop a wholesome & balanced personality



DIMENSIONS OF SRI SATHYA SAI VALUES-BASED INTEGRAL EDUCATION

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. Teamwork, cooperation, putting others first, honing of extracurricular skills, building self-confidence and stretching one's self to perform to a higher degree are some of the many positive benefits of these events.

Summer Course in Indian Culture & Spirituality

12-14 June 2015

The Summer Course in Indian Culture & Spirituality serves as an introduction programme to all students and teachers of Sri Sathya Sai Institute of Higher Learning 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.

In 2015/16, the event took place from 12 to 14 June 2015 in Prasanthi Nilayam. All university students, teachers and research scholars attended.

The morning sessions consisted of talks by teachers and research scholars of the university and interactive sessions, such as faculty and Alumni Panel Discussions. Typically, they provided insights, concepts and lessons from the ancient Indian scriptures (such as The Ramayana and The Mahabharata) and spiritual personalities and concepts. They also featured short video shows on Bhagawan Sri Sathya Sai Baba, panel discussions, a Chinna Katha Analysis

Exercise, a Quiz and a scintillating Bhajan Workshop.

In the afternoons, students and teachers from all four campuses had breakout sessions where the students participated in study circle sessions and discussed the divine discourses delivered by Bhagawan in the Summer Course in Indian Culture and Spirituality on 26 May and 29 May 1992 entitled-Mysteries of Creation and Message of the Vedas. Key moral messages from the discourses were creatively presented by students of each campus on the final day before the valediction.

The evening sessions consisted of music programmes by students of the individual campuses, talks and *veda* chanting along with *bhajans* at the Sai Kulwant Hall.

Perhaps the highlight of the day for students were the post-dinner parayanam sessions. They consisted of two to three talks by alumni or teachers who shared their personal experiences with Bhagawan Sri Sathya Sai Baba and the profound impact this had in shaping their lives. The valuable and profound life lessons and the sheer love that Baba had for His students and devotees was vividly communicated through these informal sessions.



Prasanthi Vidwan Mahasabha

16-22 October 2015

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 weeklong 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 2015 were: Faith & Prayer, Live in God, God is All Pervasive, The Love of the Timeless Mother, Saraswati Vaibhavam, God is Tremendous, Mysterious and Fascinating.

Sri Sathya Sai Grama Seva

13-22 October 2015

For over 1300 young university students (and their teachers), nine days of their academic year is spent in the service of almost 300,000 village folk in over 150 villages. This includes distribution of food, clothes and other items, along with *bhajans*, thus converting the food into *prasadam*. The service activity is part of the university curriculum for all students.

In 2015, Sri Sathya Sai Grama Seva took place from 13 to 22 October.

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 2015

The 34th Annual Convocation of the university was held at Sai Kulwant Hall, Prasanthi Nilayam in the Divine Presence on 22 November 2015. The convocation ceremony is a testimony to the values-based education philosophy of the university's Revered Founder Chancellor, Bhagawan Sri Sathya Sai Baba.

The annual convocation at Sri Sathya Sai Institute of Higher Learning (SSSIHL) coincided with the 90th birthday of Bhagawan Sri Sathya Sai Baba. The chief guest of the 34th Annual Convocation was Prof. Kenji Uchino, Director, International Centre for Actuators and Transducers, Professor, Electrical Engineering, Pennsylvania State University, USA. Prof. Uchino is a highly reputed and decorated material scientist.

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

For the academic year 2015/16, a total of 469 graduands received their degrees, 7 students were awarded Ph.D.s and 24 students received Gold Medals for distinction in their respective subject areas.

The evening session consisted of the Annual Convocation Drama, performed by the students of the university. The Drama: Jagannatakam – Jagatiki Sandesham (This Cosmic Drama – A message to the World) was based on the purpose of the 'drama' of life. The theme was portrayed through the trials and tribulations of the central character in the drama, Chaitanya, a talented young actor under the tutelage of Sri Jagannath - a famous playwright.

All-Round Gold Medallists

Sree Kumari S Raju

Anantapur Campus - III B.Sc. (Hons.)

Sai Satya Narayana V

Prasanthi Nilayam Campus - M.B.A. in Finance

Seemesh Bhaskar

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

Ashish Bisunke

Muddenahalli Campus - III B.B.M.

Gold Medallists

Siva Sundar A - M.Tech. in Computer Science

Kopparthi Harshatheja - M.Tech. in Optoeletronics and Communications

Sai Shiv Narayan - M.Tech. in Nuclear Medicine

Ivaturi Aditya - M.Phil. in Mathematics

Prakrit Kamra - M.B.A.

Menon Parikshit Ravindran - M.B.A. in Finance

Satyaprakash Mohanty - M.F.M.

Adarsh Saraf - M.Sc. in Mathematics

J Aditya - M.Sc. in Physics

Sai Gourang Patnaik - M.Sc. in Chemistry

Akarsh Bajpai - M.Sc. in Biosciences

Yogeshbaba K - M.A. in Economics

Pankaj Kumar - B.Sc. (Hons.) in Biosciences

B M S Sai Pragnan - B.Sc. (Hons.) in Economics

Devjeet Auddy - B.A. (Hons.) in Economics

Sanjana Marwah - M.Sc. in Food Technology

Mohana Lakshmi R - B.Ed.

Annapurna R - B.B.M.

Dikcha Gupta - B.Sc. (Hons.) in Mathematics

Anjana Biswas - B.Sc. (Hons.) in Physics

Sai Kiran M - B.Sc. (Hons.) in Chemistry

Ashrita C Haldipur - B.Sc. in Home Science

Athira Ajith - B.Com. (Hons.)

Bhavyasree Nair - Bachelor of Arts

Ph.D. Awardees

Uday Kiran N - Mathematics

Microlocal Analysis of Operators with Characteristics of Higher Multiplicities

K N Naresh - Biosciences

Studies on Structure, Spectroscopic Properties and Phenoloxidase Activity of Hemocyanin from Pila globosa

Gopakumar K U - Economics

Food Inflation in India-1980 to 2012: A Structuralist Policy Perspective

Pushkala Ramachandran - Food Science & Nutrition Edible Coating, Functional Food and Nutraceutical Applications of Aloe Gel and Chitosan Biopolymers

Rajeshwari C U - Food Science & Nutrition Evaluation of Coriander (Coriandrum sativum L.) Seeds for Phytoconstituents and Therapeutic Potential

Dibba Bhargavi - English Language & Literature From Purposelessness to Purpose: A Study of Shift in Perspective in Select Novels of Iris Murdoch

Maitali Verma - English Language & Literature Inter- and Intra- Personal Unities in 'Poetry as a Process': A Study of Select Modern / Post-Modern Poets in an Applied Critique













Annual Sports & Cultural Meet 2015

11-15 January 2016

We, the children of Sai, swear that, we shall take part in the Annual Sports & Games of Sri Sathya Sai Institutions, in fair competition; respecting and abiding by the rules which govern them and with a desire to participate in the true spirit of sportsmanship, for the honour of our country, the glory of sport and our beloved Mother Sai.

Sports Meet Oath, Sri Sathya Sai Educational Institutions

Perseverance and tenacity are often the foundational traits of success. When combined with dedication and teamwork, the result is outstanding. Over two thousand students—age five to twenty-five—of Sri Sathya Sai educational institutions wore these very traits on their sleeve on the 11th of January. Together, they put on a spectacular display of courage, hard work, skill and brilliance during the Annual Sports and Cultural Meet, a stand-out event of their annual academic calendars.

The event is a major part of the values-based integral education system practiced at these institutions for over thirty-five years. The prime motivation for this offering is to please the Revered Founder Chancellor, Bhagawan Sri Sathya Sai Baba. Preparations for the event began a month in advance.

The creative ideas, set-ups, props, practice and final performances were a combined effort of the teachers and students of the institutions with limited budgets and very little assistance from the outside.

Truly, as they say, seeing it is believing it. The list of events and performances during the five-day meet include:

Sports Meet

11 January

Prasanthi Nilayam, Anantapur, Brindavan and Muddenahalli Campuses presentations:

Bike Stunts, Thunder Birds, Dragons and Drums, Rugged & Tough, Boomers, Roller blades, Ladder Maniacs, League of Legends, Hip-tronic, Wizards of Wonder, *Kalaripayatt*, The Lords of Gravity and The Blazing Warriors.

Cultural Meet

12-15 January

- Drama presentation on Bhakta Ramadasa by students of Brindavan campus
- Musical offering entitled Know Then Thyself by the students of Anantapur Campus
- Drama presentation entitled *Tere Pyar Ke Liye* by students of Muddenahalli campus
- Drama presentation on the qualities of Hanuman by students of Prasanthi Nilayam campus

Prize Distribution Ceremony

15 January

The Prize Distribution Ceremony honours all students who excelled in both sports and cultural activities, not just during the Annual Sports and Cultural Meet, but throughout the academic year.

The event began with a grand procession comprising the university brass band, *veda* chanting students and a flag-bearing squad. A series of brief talks by five students of different institutions then highlighted the significance of the event for the students and teachers involved. They narrated by various examples and

incidences how the event highlights the bond of love between students and Bhagawan Sri Sathya Sai Baba.

Next, the Founder Chancellor's trophies were awarded to all the Sai educational institutions.

Following this, the list of winners was presented to Bhagawan Baba; and finally, the championship trophies were awarded. Given below are the champions for the academic year 2015/16.

Athletics Champions

Kunti Tandi

Postgraduate, Anantapur Campus

Maddireddy Meghana

Undergraduate, Anantapur Campus

Gaurav D Verma

Postgraduate, Prasanthi Nilayam Campus

Amarendra Pratap Biswal

Undergraduate, Prasanthi Nilayam Campus

Praveen Kumar Reddy G

Brindavan Campus

Tallupullu Naresh

Muddenahalli Campus

Cultural Champions

Krithika Lakshmi C

Postgraduate, Anantapur Campus

Ridhi Bhalla

Undergraduate, Anantapur Campus

Balaram Khamari

Postgraduate, Prasanthi Nilayam Campus

Zuben Mukhia

Undergraduate, Prasanthi Nilayam Campus

Karan Kumar

Brindavan Campus

Mayank Gandhi

Muddenahalli Campus

Fine Arts Champions

Bhawana Rai

Postgraduate, Anantapur Campus

Kotha Hridhay Keerthana

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)
- Vedic chants and stotrams
- Meditation & Silent sitting
- o **Suprabhatam** (prayer at dawn)
- Assembly (college prayer)
- Brahmarpanam (food prayer)
- Daily **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

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

- Sports
- Games
- Jogging
- 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

- Self-Reliance departments:
 Electricals, Plumbing (water supply),
 Audiovisual, General store, Dispensary
 Dietary services, Hostel mess, Arts &
 Crafts, costumes & props, etc.
- Community living
- Social Work
- Voluntary work
- Grama Seva (Annual Village Service)
- 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 2015/16, topics included: Social Network and Spirituality, Mindfulness, Practical Aspects of Selfless Service, Ramayana, 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 2015/16, topics included: Free will & Destiny, Who am I?, Gratitude, Experiments on Ideals of Life, Sai - The Indweller, If You are Happy, You Will Succeed, Optimism, Change, Internet vs. Inner Net, Humanity, The Power of Speech, My Beloved Lord, 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 conceived and inspired by students themselves. They are a reflection of the impact of the unique education they receive here.

Examples of these from 2015/16 include:

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.

Aptly named *Love Stream*, the project has helped transform the lives of twenty-five socially marginalized families through dedicated love and care.

The colony that consisted of 10-12 huts in 1986 now has twenty neat little houses. The creatively raised capital has funded water pumps, stationery items, food supplies and even fifty trees so that they can sell their own fruits and earn an income. As a result, almost every family now has its own bank account.

This year, the warden had regular monthly visits with four different students each time. In this manner, the students got exposed to them, their pathetic condition and developed empathy and a spirit of sharing

and caring towards the less fortunate ones in the society.

The lepers were facing security issues with passersby walking into the society (the colony is located on the highway) as it did not have a gate. They had been requesting for one for a long time and this year, sufficient funds were raised to get a strong gate built for them

Old Age Home Visit

Muddenahalli Campus, 14 April 2015

Students of all classes along with teachers, visited the Sai Dwarakamayee Vriddhashrama, an old age home housing about 40 residents—old men and women—at Sultanpet, Nandi village, a few kilometres away from the campus.

The visit was scheduled for the first Sunday of every month, whenever the students were in campus. The students were sensitized to the need for respecting elders and giving love and care to parents. Games and interactive sessions imbued with light fun and personal touch provided the forum for better understanding of the magnanimity of god's gift called human life.

Students conducted *bhajans* and *veda* chanting before commencing their every visit and interaction at the old age home.

Sai Bandhan

Brindavan Campus, April-May 2016

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 2016, the second year of the program, as many as eighty students 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 the patients and their families have for Bhagawan Baba. From a bleak future, Bhagawan had turned around their lives and made them look forward to a happy and healthy future.





From being rejected by society because of their inability to contribute to it, these patients have turned into productive members of society.

Impact on Students

The students were also able to experience the 'infectious' nature of good work which draws others too.

Many Sai youth accompanied them in the villages, eager to show them the dwellings tucked away in the labyrinthine by-lanes of the villages.

In some cases, members of the family of students also enthusiastically participated. Some auto-rickshaw drivers refused to charge the fare, considering the noble cause and with a desire to be part of this sacred mission.

In all, these students returned from the holidays with renewed vigour, a sense of responsibility and with a deep desire to sanctify their lives by serving society.

T Sulakunta Village Grama Seva

Brindavan Campus, 15-16 April 2016

T Sulakunta (population 200), a village in Krishnagiri district, Tamil Nadu was chosen for the Grama Seva work by students in 2016. Fifty-three students and seven teachers enrolled themselves for this year's service in the village. The logistic support for the work was provided by the Sri Sathya Sai Seva Organisation, Hosur District, Karnataka.

Planning and preparation began a month in advance and included making *chulhas*, preparing lectures and logistical planning.

On the morning of 15 April, the group arrived at the village and commenced the service with *nagar sankeertan* and *veda* chanting.

The students and teachers then divided themselves into various groups and commenced their work. One group of students painted the school building. Another took a balvikas class for the children.

A third group group went round the village installing solar bottle bulbs - an ecologically sustainable and free-of-cost source of interior light to rooms using plastic bottles filled with water plus a little bleach (to inhibit algal growth), fitted through the roof of the dwelling. During daytime, the water inside the bottle refracts sunlight, delivering as much light as a 40- to 60-watt incandescent bulb to the interior. The 'bulb' can last up to five years.

Another group set up a solar panel fed electric light in the community hall where the children assembled for study every night. The smokeless *chulha* group went around installing the *chulhas* in previously selected dwellings.

In the evening, a student and teacher spoke in Kannada about the ideals Sri Rama placed before mankind. After *bhajan* and *mangala aarti*, the group retired at the Hosur samithi.

The next day entailed sports and drawing competitions with prizes awarded to the victorious ones. There was a lot of excitement and enthusiasm. Another group of students taught the children valuable lessons in keeping the surroundings clean.

When the group was ready to depart, one of the village teachers, Smt. Hamsavalli was in tears. She said she had never seen these children receive so much love.
One of the students in the IX Standard, Sumitra, who had no parents and whose il-

Sumitra, who had no parents and whose illiterate grandmother was the only guardian, too was in tears. She expressed how much she had been motivated to study well. She confided that her ambition in life was to become a District Collector.

The bleak surrounding and the stifling poverty had not snuffed out the dream of this little girl.

Impact on Students

The take-away lessons for the students were many. They understood how much the country needs their service, and that there are fellow human beings without any hope in the villages and who are somehow carrying on with their humdrum lives.

Students experienced that even in such surroundings, there are bright children who could be made to shine if opportunities were provided.

The seva project also reminded them to count their blessings. They understood the import of Bhagawan Baba's saying: Serve society and you will be rewarded with unconditional love in return.



© Content, Design & Desktop publishing Sri Sathya Sai Institute of Higher Learning

For further information, contact:

The Office of the Registrar Administrative Building Sri Sathya Sai Institute of Higher Learning Prasanthi Nilayam – 515134 Dist. Anantapur Andhra Pradesh India

Tel: +91 8555 287 239 Email: registrar@sssihl.edu.in

Web: sssihl.edu.in





The end of culture is perfection SRI SATHYA SAI BABA

sssihl.edu.in