



INDIAN INSTITUTE OF INFORMATION TECHNOLOGY SRI CITY, CHITTOOR

(An Institute of National Importance under Act of Parliament)

Annual Report 2019-20



श्री १९८९ ई. १९८९ ई.
भारतीय सूचना प्रौद्योगिकी संस्थान
SRI CITY, CHITTOOR
INDIAN INSTITUTE OF INFORMATION TECHNOLOGY

IIIT Sri City Chittoor

Annual Report 2019-20

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1. Director's Report

Our journey began with the able mentorship of IIIT Hyderabad along with IIT Hyderabad. We continue to follow the best practices of these institutes in all our academic and research programmes through structured collaborations.

Our new campus hosts the best in class infrastructure to support high-quality learning. Each floor of the building has designated spaces including state of the art air-conditioned classrooms, labs and faculty cabins and student activity centers. Currently we have two-blocks of hostels and a large dining facility. The construction of two more hostel blocks combined with a dining hall is in progress. Besides, we have rented apartments for PhD and PG students in the Sri City township. Our industry partner Sri City Pvt Ltd enables access to Sri City, a largest integrated industrial township with leading 180 MNCs from 27 countries. Enabled by our industry partners, IIIT Sri City has been in regular touch with these companies to carry out collaborative projects with our students visiting these companies regularly and also taking up internship opportunities.



We strongly believe in the philosophy that good faculties can guide the students' learning and shape the student's career. Hence, we have carefully planned and recruited our faculty members who are alumni of globally known institutions. All of our faculties have PhDs from IITs/IISc or top universities worldwide. Notably, all are young and dynamic faculties with extensive research and industry experience. The faculties are quite active in their research; and importantly are able to translate their knowledge and experience into academic learning for our students.

Our BTech program has dedicated themes and tracks of courses offered to both ECE and CSE students, which are optimized regularly; based on constant feedback received from the industry. Further, since 2019, we have BTech programs with specializations in AI & Machine Learning, Cyber Security and Cyber Physical Systems. Many of the courses under these specializations are taught by industry experts; including workshops. In order to promote UG-Research, we have a merit-based BTech Honours program wherein the students can work on a particular area under a faculty or group of faculties for a period of 2 years. They earn their Honours degrees by producing research publications or Intellectual property or a software/hardware product.

The First Convocation of the institute was conducted on 23rd April, 2019. Shri M.Venkaiiah Naidu, Honourable Vice-President of India graced the occasion as the Chief Guest and delivered the convocation address. A total of 135 UG students graduated in 2017 and 2018 batches and the first ever MS student received their degrees. The convocation was attended by Prof. U. B. Desai, Director of IIT Hyderabad (Former Mentor Director of IIIT Sri City), Prof. P. J. Narayanan, Director, IIIT Hyderabad, Prof. Sathyanarayana, Director, IIT Tirupati and officials of Government of Andhra Pradesh.

The Board appreciated the achievements of the institute in the first five years and placed on record the contributions of Prof. U. B. Desai (Director of IIT Hyderabad), Mentor Director for his leadership, Industry Partners—represented by Sri C.Srinivasa Raju, Chairman, Sricity Foundation for leading development of state-of the art infrastructure and Director & faculty of IIIT Hyderabad for leading the academic and research activities.

Our achievements in campus placements, internships, sponsored projects and industry engagements are a testament of the same. Our first three batches of students have launched their careers in multinational IT companies, successful emerging technological startups, and core ECE companies. Microsoft, Amazon, TCS, IBM, Deloitte, Swiggy, Grofers are some of the multinational companies where our students are currently placed. The number of companies that have visited our campus has been steadily increasing, which reflects the quality of our students and of the education and orientation they have received at the institute. To increase the visibility of our students to high quality jobs in the country (and abroad) we have facilitated in the curriculum for students to enroll in summer and semester-long internships (during the end of the pre-final year and end of the final year respectively).

To guide each and every student through the challenges that placements present, a set of 10 to 15 students are associated with a faculty program under the IMPACT program, where faculty document the plan, targets, and achievements of their students and guide them through the land of opportunities and pitfalls. In particular, the students are unaware of so much information, which can potentially increase student chances to achieve their dream offers; the IMPACT programme presents an opportunity for students to fill that information gap with meetings with faculty and their peer groups.

Within a short period of 7 years, the Institute has established 2 research centers - Centre for Smart Cities (CSC) and MHRD initiated Design and Innovation Center (DIC). These centers focus on different themes such as Computer Vision, Data Analytics, IoT, Machine Learning, Solar Energy, Smart Transportation, etc. The institute has several research groups and importantly, have got several sponsored projects worth 4+ crores from both Govt. funding agencies such as ISRO, DRDO, Department of Science and technology (DST) and industries such as Analog Devices, NVidia, Hella Automotive, etc. Significantly, IIIT Sri City is the first IIIT in PPP mode to start a fully funded MS/PhD program in July 2016. The institute currently has 30+ full-time PhD students and Research Fellows working on different sponsored projects.

We have established Gyan Circle Ventures, a Technology Business Incubator (TBI) funded by MeitY (Under TIDE 2 Scheme) to incubate and fund deep-tech Startups. We are part of MHRD supported Institute Innovation Cell which encourages creativity and innovation among students. E-Cell of IIIT Sri City furthers the efforts of inculcating entrepreneurship mindset through workshops, lectures and camps.

Apart from technology and academics, we believe that in the long-run, an individual's success is decided not only by the technical skills but also by his/her social behaviour, soft skills and aptitude. We have more than 12 clubs comprising both technical, cultural and social activities. In IIIT Sri City, each student is encouraged to be a member of at least three clubs, one from each category.

Our societal engagements are noteworthy. We have adopted five nearby villages under Unnat Bharat Abhiyan. Our students are actively engaged in various activities in these villages with focus on children, educated youth, women and elderly people.

IIIT Sri City is strategically located in the midst of industries yet offering a green environment; and in close proximity to Chennai and Tirupati. IIIT Sri City has a serene and calming environment yet offers a strong social infrastructure. This ensures that the Institute is well-connected to the IT industries and Start-up ecosystem in Chennai, the electronics start-up ecosystem in Tirupati and other well-known academic institutions for collaboration.

I am confident we would attain greater heights with the passing years due to the depth and richness of our education programs, the strength of our research projects, the dedication of our faculty, the devotion of our professional staff, and the accomplishments of our students. All these, point towards an exciting and promising journey at IIIT Sri City.

On behalf of IIIT Sri City fraternity, I wish to thank the members of the Board of Governors, Ministry of Education, Government of Andhra Pradesh and Industry Partners for their continued guidance and supporting the development of the campus.

Prof.G.Kannabiran
Director

2. IIITS as Institute

2.1 About Institute

Indian Institute of Information Technology Sri City, Chittoor known as IIIT Sri City was established in 2013 by Ministry of Education, Government of India as an Institute of National importance by an Act of Parliament with a view to develop new knowledge in Information Technology and to provide manpower of global standards for the Information Technology industry and to provide for certain other matters connected with such institutions or incidental thereto. The partners are Government of India, Government of Andhra Pradesh and Sricity Foundation. The Institute was established in the year 2013 under this scheme in partnership between the Government of India (50% contribution), the Government of Andhra Pradesh (35% partnership) and the Sricity Foundation (15%) partnership.

In the year 2011, the Government of India, Ministry of Human Resource Development, had announced the scheme to set up 20 new Indian Institute of Information Technology (IIITs) under the Public-Private Partnership (PPP) model. The scheme envisages establishment of autonomous, not for profit, self-sustaining, research-led educational institutes which will contribute significantly to the global competitiveness in the key sectors of Indian economy and industry. These institutes are expected to focus on applied research and education in applied IT in selected domain areas. IIIT Sri City Chittoor was registered as a society with the registrar of societies on September 2, 2013 under Societies Registration Act. Subsequently, it was declared as Institute of National Importance by an Act of Parliament vide Gazette of India dated 9th August 2017.

2.2 Mission, Vission and Objectives

2.2.1. Mission

The mission of IIIT is to achieve high standards of excellence in generating and propagating knowledge in information technology and other allied engineering disciplines.

2.2.2 Vision

Nationally Relevant and Internationally Recognized Entrepreneurial Institution

2.2.3 Objectives

- To Emerge as one amongst the foremost Institutions in information Technology and allied fields of Knowledge
- To advance new knowledge and innovation in information technology and allied fields to empower the nation to the forefront in the global context;
- To develop competent and capable youth imbued with the spirit of innovation and entrepreneurship with social and environmental orientation to meet the knowledge needs of the country and provide global leadership in information technology and allied fields;
- To promote and provide transparency of highest order in matter of admission, appointment to various positions, academic evaluation, administration and finance.

2.3 Governance

2.3.1 Board of Governors (BoG)

1. In-Charge Chairperson: (till a Chairperson is appointed)

Shri Amit Khare, IAS

Govt of India Secretary, Department of Higher Education

MHRD (from 14-12-2019 onwards)

Shri Amit Khare is the Secretary, Higher Education in the Ministry of Human Resource Development. He is an Indian Administrative Service officer of 1985 batch from Jharkhand cadre. He is a graduate from St. Stephens College and Post Graduate from IIM, Ahmedabad. He has held various important assignments in both, Central & State Government. He was Collector/Dy. Commissioner of 4 districts. He has long years of experience in Finance as also in the field of Education. He was Secretary, Board of Revenue, Bihar, Commissioner of Commercial Taxes of Jharkhand, and Principal Secretary, Finance & Planning Department, Jharkhand. He has also served as Principal Secretary to Governor, Jharkhand and also Vice Chancellor of Ranchi University. Mr Khare served the Central Government as Joint Secretary, Higher Education looking after Education Policy, International Cooperation & Copyrights. He also served as Member Secretary of National Pharmaceutical Pricing Authority of India.

2. Shri R. Subrahmanyam, IAS

Govt of India Secretary, Department of Higher Education

MHRD (upto 13.12.2019)

Shri R Subramanyam is the Secretary, Higher Education in the Ministry of Human Resource Development. The 1985-batch IAS officer from Andhra Pradesh cadre. He studied BA Economics from Madras Christian College, Chennai and MA (& M Phil) in International politics from Jawaharlal Nehru University, New Delhi. He studied MBA in International Business from Indian Institute of Foreign Trade. Studied MSc in macro-economics from University of Bradford UK on Commonwealth Fellowship He worked as Principal Secretary, Rural Development department Government of AP. He worked as Commissioner Weaker Section Housing and MD of AP State Housing Corporation implementing the INDIRAMMA housing programme aimed at creating a 'hut-free' State. He worked as Director in Ministry of Textiles in Govt of India in Delhi; Director of School education; District Collector of Hyderabad and East Godavari Districts.

3. Smt Darshana Momaya Dabral

Joint Secretary & Financial Advisor

Ministry of Human Resource Development

Shastri Bhawan, New Delhi

The 1990 batch IP & TA & FS officer, Ms. Darshana Momaya Dabral is the Joint Secretary & Financial Advisor, Department of Higher Education, MHRD, New Delhi.

4. Shri Rakesh Ranjan
Additional Secretary (Technical Education)
Department of Higher Education, MHRD
New Delhi

He is a Mechanical engineering graduate from IIT Kanpur, He joined the Indian Administrative Service (IAS) in 1992. During the last over 25 years, He served for over 14 years in some of the most difficult regions of India (states of Tripura, Jharkhand and Manipur), and 5 (five) ministries/ departments of the Government of India- Defence, External Affairs, Culture, Higher Education and Pharmaceuticals.

5. Shri Satish Chandra IAS
Special Chief Secretary, Department of Higher Education
Government of Andhra Pradesh

Shri Satish Chandra is the Special Chief Secretary to Govt. of Andhra Pradesh, Higher Education Department/ Principal Secretary (HE), Govt of Andhra Pradesh. He is an Indian Administrative Service officer of 1986 batch cadre.

6. Shri Srinivasa C. Raju
Chairman, Sricity Foundation

Shri Chintalapati Srinivasa Raju is the Chairman of Sri City, which is the largest Integrated Business city in South India.

Shri Chintalapati Srinivasa Raju, widely known as Srimi Raju, is an Indian Entrepreneur, and Private Equity Investor. Srimi Raju was the Founding CEO & MD of Dun & Bradstreet Satyam Software, the in-house technology unit of Dun & Bradstreet, established in 1994, which focused on implementing large-scale IT projects for Dun & Bradstreet businesses. DBSS was later renamed as Cognizant.

Srimi later became the Co-founder and Chairman of Peepul Capital (successor to iLabs Venture Capital Fund), a Private Equity (PE) firm based out of Hyderabad and Chennai. Besides funding and mentoring next generation entrepreneurs, he plays an active role in building educational institutions of higher learning.

Srimi has an MS in Civil & Environmental Engineering from Utah State University, USA and a BS in Civil Engineering with Honors from REC (NIT), Kurukshetra.

Srimi is passionate about Education and Skills Development. He is a Founding-Member & Member of Governing Council of International Institute of Information Technology (IIIT), Hyderabad; Industry Partner (Donor) & Member of Board of Governors of Indian Institute of Information Technology, Sri City; Executive Board Member of Indian School of Business (ISB) and Benefactor of SrimiRaju Center for Networked Economy (SRITNE); Co-Sponsor (Donor) and Board Member of KREA University; and Founding-Member & Board Member of T-Hub, Hyderabad.

7. Shri Ravindra Sannareddy **Managing Director, Sri City (P) Ltd**

Shri Ravindra Sannareddy is the Managing Director of Sri City, which is the largest Integrated Business City in South India. He has been involved in creating and sustaining high-tech ventures for close to two decades. Today, Ravi is an established industry-captain with diverse interests in Infrastructure Development and other allied businesses.

Shri Ravi also personifies the success story of a young first generation entrepreneur who has his roots in rural background and who has grown his personal stature and his businesses to immense international scale and size in a short span of time.

As a “son of the soil”, he decided to give back to the society and uplift the economically backward region where he was born. He amalgamated his extensive experience gained by living and doing business abroad with his strong roots in the local communities in creating Sri City, a striking example of new urbanism in India. He has been successfully leading his team to accomplish his mission to make Sri City, as the destination for the best companies of the world.

He holds an M.S.E Degree in Environmental Engineering from the Johns Hopkins University, Baltimore, Maryland, USA and an M.S. Degree in Water Resources Management from Utah State University, Logan, Utah, USA and a B.S. Degree in Civil Engineering from National Institute of Technology (formerly REC), Tiruchirapalli, Tamil Nadu, India. He is a Member of Board of Governors of Indian Institute of Information Technology, Sri City.

8. Prof.G.Kannabiran **Director, IIIT Sri City Chittoor**

Dr. Ganesan Kannabiran Professor (HAG) of Management Dr. Ganesan Kannabiran is a senior Professor of Management at the National Institute of Technology, Tiruchirappalli with over 25 years of experience. He has served as Head of the Department for several years and Dean of Research & Consultancy at the institute level. He also served as the Director i/c of the institute for a brief period from June- November 2016.

He is a recipient of Commonwealth Professional Fellowship (Edinburgh Napier University, UK-2015), Two Fulbright Fellowships (Education Administrators Programme-2011, Fulbright Visiting Lecturer at Oklahoma State University-2015), and British Council Study Fellowship (Huddersfield University UK-1997). He served as the National Expert for an international research study supported by Asian Productivity Organization on Measuring Productivity in Higher Education.

As the Founder Director of Center for Entrepreneurship Development and Incubation (Section 8 Company promoted by NITT), he obtained a major grant of INR 15.5 M from Ministry of Information Technology, Government of India for creating an incubation facility and to support innovative business ventures through seed funding. He has led the institute to win “High Impact Entrepreneurship Campus Award 2015” jointly conferred by Government of India. He led the efforts to secure corporate funding of INR 1.2 Crores from Sonata Software Ltd for supporting the innovation and entrepreneurship development efforts.

2.3.3. Building and Works Committee

Chairman
Prof. G. Kannabiran - Chairman
Director
IIIT Sri City, Chittoor

Members
Prof. Abhijit Ganguli - Member
Associate Professor & HoD
Department of Civil Engineering
IIT Tirupati
(Nominee of MHRD, GoI)

State Government Representative – Member to be nominated

Shri Srinivas Tallapragada
Independent Projects & Facilities Consultant
(Nominee of Industry Partner)

Prof. A. Mehar Prasad - Member
Professor
Structural Engineering Division
IIT Madras

Prof. Minakshi Jain - Member
Director
School of Planning and Architecture
Vijayawada

Dr. Rajendra Prasath - Member
Associate Professor
Faculty In-charge for Academic Programmes

Dr. Hrishikesh Venkataraman - Member
Associate Professor
Faculty In-charge for Research & Development

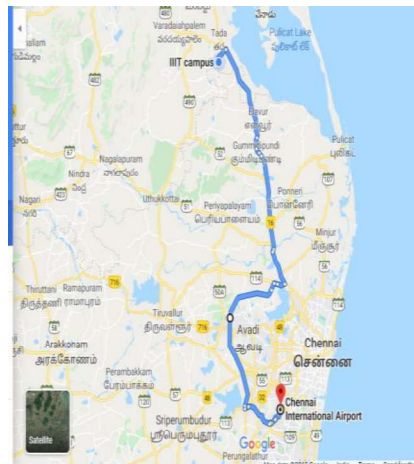
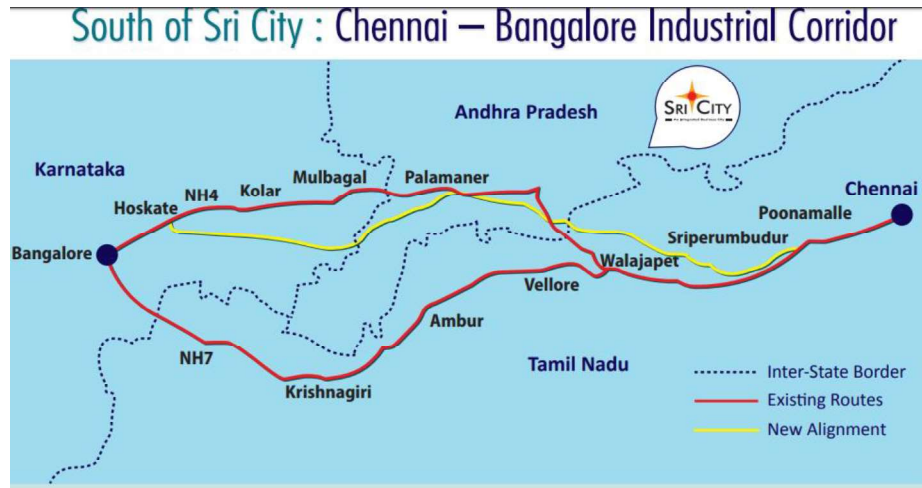
Registrar Incharge
Secretary
IIIT Sri City, Chittoor

2.3.4 Senate

Chairperson Ex-Officio	Prof.G.Kannabiran Director, IIIT Sri City Chittoor
	Prof.Rajendra Prasath Associate Professor and Faculty Incharge for Academic Programs
	Prof.Hrishikesh Venkataraman Associate Professor and Faculty Incharge for Research & Development
	Prof.C.V.Jawahar Professor & Dean (R&D), IIIT Hyderabad
Three persons from amongst Educationists of repute And not employees of the Institute	Prof.Devendra Jalihal Professor (Electrical & Electronics) IIT Madras
	Prof.M.Balakrishnan Professor, Computer Science & Engg and Deputy Director, Strategy & Planning, IIT Delhi
	Prof.S.Sudarshan Subrao M Nilekani Chair Professor Computer Science & Engg, IIT Bombay
Three persons who are not Members of teaching staff Co-opted by the Senate for their Specialized knowledge	Prof.Gargi B Dasgupta Director, IBM Research India and CTO, IBM India Bengaluru
	Shri Kannan Babu Ramia Principal Engineer, Intel India, Bengaluru
	Shri Srikumar Sreedharan Product Head, TCS, Chennai
Ex-Officio Secretary	Registrar Incharge

2.4 Campus and location

The Campus spreads across 81 acres and is equipped with state-of-the-art Infrastructure in Sri City. Located 55 km north of Chennai on the Nellore Highway, Sri City boasts of seamless connectivity by road, air etc. (Visit: <http://www.sricity.in>). IIT Sri City is located in Sri City, a decade old state of the art industrial city spread over 8000 acres encompassing a multi-product Special Economic Zone (SEZ), Domestic Tariff Zone (DTZ), Free Trade & Warehousing Zone (FTWZ) and Electronics Manufacturing Cluster. Sri City is hosting over 180 companies from 28 countries. The institute has access to the industries and social infrastructure available in Sri City through the Industry Partner.



2.5 Infrastructure

Classroom

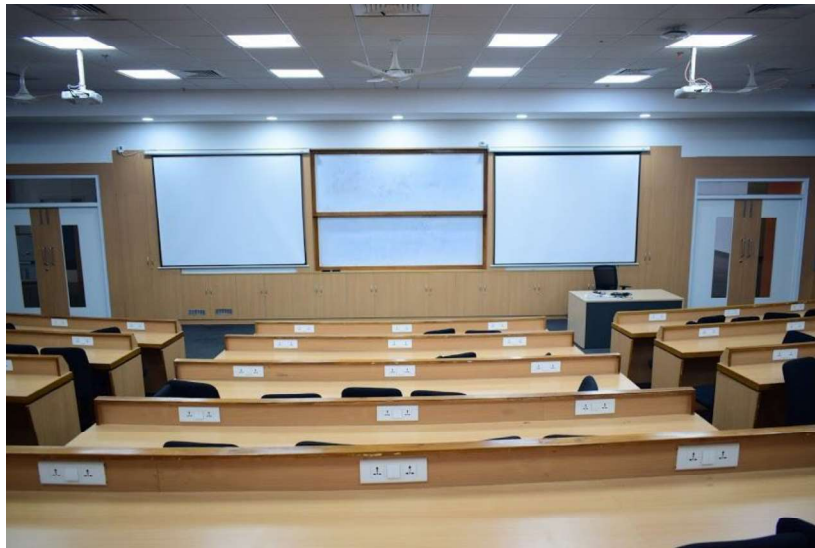
The Institute started functioning from its own premises from the academic year 2018-19.



Academic Block



Class Room with 60 seating Capacity



Class Room with 120 seating Capacity

Library

Major events in the academic year 2019-20, for the IIIT Sri City library. As shown in the photographs below, the total area of the Library is 1905 sqft with a seating capacity of up to 50. There are 23 racks with a total capacity of 2975 books including CSE, ECE, Mathematics and Humanities. This number may vary based on the book size.



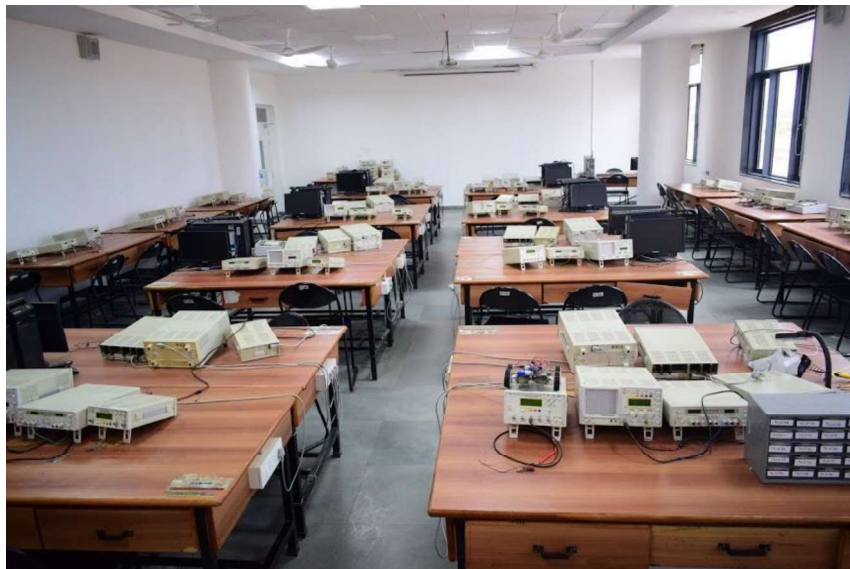
A number of textbooks, reference and research related books were purchased as shown in table below: Details of expenditure on academic books at IIIT Sri City during 2019-20

S.No.	Department	No. of books	Cost
1	ECE	39	26,780
2	Mathematics	19	7,936
3	Humanities	17	7,151

Labs



Computer Labs with 125 seating capacity



Electronic Labs with 100 seating capacity

Hostels



Hostels and Dining Hall Facility



Dining Hall



Sports Facilities

3. Admissions

3.1 UG Admissions Policy:

IIIT Sri City offers Undergraduate Programs focused on Information Technology

- B. Tech in Computer Science and Engineering (CSE)
- B. Tech in Electronics and Communication Engineering (ECE)

Admission under JoSAA/CSAB:

IIIT Sri City adheres to Central Educational Institution Reservation as per Admission Act. Admission is based on the joint entrance examination (JEE Main). Notification of JEE Main is announced in dailies across India during September – December and is conducted in the month of May every year in various centers across India. Admissions are open to all classes, religions, races and genders including transgender. B.Tech admissions into CSE and ECE programs are done through JoSAA/CSAB.

Based on the merit ranking in JEE Mains, the Joint Seat Allocation Authority (JoSAA) or the Central Seat Allocation Board (CSAB) invites candidates for an online counseling session to choose the institute of their choice. JoSAA or CSAB announces the seat allocation process and IIIT Sri City plays no role in seat allocation to students. Merit is the only criteria for admission into IIIT Sri City. For further details on admission process, please visit website www.josaa.nic.in.

257 students were admitted into the 4 year B.Tech programme in CSE and ECE through CSAB/JoSAA.

Admission under DASA and Study in India Programme:

The institute has taken up steps for admission of overseas students through DASA and Study in India Programme, starting from 2019-20. It is proposed to accommodate a maximum of 15% of seats for DASA under Non-SAARC category. Under the Study in India programme, the institute will be offering a 25% fee waiver for 20% of the students, subject to a maximum of 40 students in CSE and ECE programmes. In addition, as a part of the Study in India and UK Education and Research Innovation partnership (UKIERI), IIIT Sri City will be accommodating students from specific universities from the UK to spend a minimum of two weeks to 6 month stay at IIIT Sri City.

For more details about DASA visit www.dasanit.org

For more details about <https://www.studyinindia.gov.in/>

7 students were admitted into the 4 year B.Tech programme in CSE and ECE through DASA.

3.2 PhD Admission Policy:

Doctor of Philosophy (PhD)

Computer Science and Engineering / Electronics and Communication Engineering:

A good academic record with ME / M.Tech / MS or equivalent degree in any branch of Engineering / Technology / Bio-informatics having first class (60% and above) or equivalent CGPA in grade point scale. (or) Exceptional candidates with Master's in Statistics / Mathematics / MCA / Physics / Electronic Sciences / Computer Science / Atmospheric Science/Information Technology / Bio-informatics / Geography (or an associated area with strong background in mathematics and programming), or any other related subjects (or) Exceptional candidates having BE/B.Tech OR equivalent degree may also be considered.

Admission of Part-time PhD students

The Institute has started a Part-Time PhD programme for personnel from industry and Government of India Research labs such as DRDO, ISRO etc. from Monsoon (July) 2019 onwards.

4. Academic Programs

4.1 Under Graduate

Under-Graduate Curriculum

IIIT Sri City, Chittoor was mentored by IIIT Hyderabad in the first 6 years. The curriculum at IIIT Sri City follows a practise-theory-practise approach wherein the students are first introduced to real-world engineering concepts by providing hands-on-training. This is followed by rigorous theory-based courses which is again followed up with hands-on courses with intense real-world projects, requiring intense involvement from each student. The curriculum has been designed keeping in mind the best practises of IIIT Hyderabad, IITs and leading institutions of higher learning globally. The Institute combines top class education with pioneering research, whereby under-graduate students are encouraged to participate in different research and technology development projects, starting from the end of 2nd year. Notably, the curriculum offers the flexibility of Honours program, wherein the student can hone their skills by working on a specific area for a period of 2 years and bring in a substantial impact on their area of interest. It is proposed to offer Minors in areas such as Cyber Security, Cyber Physical Systems, Smart Manufacturing, AI & Machine Learning, FinTech, Bio-Informatics, Blockchain, etc. In addition, it is proposed to offer a semester-long project in an Industry or at a reputed research lab, as part of the curriculum.

Undergraduate with specialization

At IIIT Sri City, the eligible students could pursue B.Tech. with a specialization in AI & ML, cyber security and Cyber physical systems by doing additional credits and semester long internship projects.

Specialization in AI ML

Artificial Intelligence has emerged with its potential ability to solve complex societal problems of recent times including education, healthcare, security, information forensics, visual understanding, efficient transportation, increased efficiency in providing e-governance services to the public, etc. Many countries have made focused national efforts. The Government of India has also initiated widespread discussion on the role of AI in India. Niti Ayog has suggested the dedicated AI plan to the Govt. of India. Moreover, the top IT industries such as Google, Amazon, IBM, Microsoft, etc. have invested huge funds in AI based research and development in recent days. Many startups are also emerging nowadays in AI across the globe.

Being an Institute of National Importance in Information Technology, the specialised B.Tech. The Programme in Artificial Intelligence & Machine Learning will boost the IIITS ecosystem further and will produce highly skilled manpower. The B.Tech. in Artificial Intelligence & Machine Learning aims to bridge the urgent needs of the industry and to produce the high-end AI scientists and engineers for the society. The primary aim of this specialised program is to produce graduates by providing rigorous training in the priority areas of Artificial Intelligence. The B.Tech. with a Specialisation in AI & ML would strengthen the students such that they can become AI world leaders and shape India's future in a better way.

Artificial Intelligence and Machine Learning (AI & ML) has been identified as one of the top areas for jobs and research. This domain will have more jobs as compared with any other plain B.Tech programme in CSE alone. Our institute took so many efforts to launch a specialisation in AI & ML to provide our students preparedness to meet the demand of Engineers with AI & ML knowledge and skills. So it is advisable to the current final year students to opt for the specialisation in Artificial Intelligence and Machine Learning. This would maximize your chances to get placed in a good company and a decent salary.

For a plain B.Tech degree in CSE, the current final year students will have to complete 156 credits. For B.Tech with Honors, students have to complete 164 credits.

Additionally, Students may opt for the following courses that are offered with practice oriented learning as part of the specialization in AI & ML:

- a) Deep Learning
- b) Reinforcement Learning
- c) Industry Applications of AI & ML
- d) Semester Long Project

The items a) - c) carries 4 credits each and it involves teaching by experts from industry and academia. The semester long project carries 8 credits and the work should be carried out in industries that engage in AI & ML. Thus in total, a student opting for AI & ML specialization should take 20 credits additionally to earn B.Tech. degree with a Specialisation in AI & ML.

Specialization in Cyber Security

Cyber Security jobs that are available currently and in the subsequent years are outstripping the supply of IT jobs. The inference is that there is an increasing demand for Cyber Security professionals but the companies are finding that there is a lack of people with Cyber Security profiles. In fact NASSCOM has called to create one million Cyber Security jobs before 2025 (to meet the demands) and all these point to the pressing need to create these expertise in the university for students graduating in the coming years. In the presence of such opportunities, we focus on developing expertise in Cybersecurity through specialized post graduate programme in cyber security.

B.Tech. with a specialization in Cybersecurity is aimed at preparing brilliant minds to meet the requirements of highly skilled manpower in the area of Network and Data Security. IIIT Sri City Community is well connected with various top-tier industries that work in various thrust areas of Information Security. The proposed specialization consists of a variety of courses from information security, and some of the advanced electives in the respective field.

For a plain B.Tech degree in CSE, the current final year students will have to complete 156 credits. For B.Tech with Honors, students have to complete 164 credits.

Additionally, Students may opt for the following courses that are offered with practice oriented learning as part of the specialization in Cybersecurity:

- a) Introduction to Cybersecurity
- b) Network and Data Security
- c) Applied Cryptography
- d) Semester Long Project

The items a) - c) carries 4 credits each and it involves teaching by experts from industry and academia. The semester long project carries 8 credits and the work should be carried out in industries that engage in Cyber Security. Thus in total, a student opting for Cyber Security specialization should take 20 credits additionally to earn B.Tech. degree with a Specialisation in Cyber Security.

Specialization in Cyber Physical System

CPS is an amalgamation of physical processes, wireless networking and extensive computing. The physical processes are monitored with varied sensors and then communicated through networking to create an automated feedback-based embedded control system. The automated/ smart systems are modeled from the data points through technological abstractions of data analytics, machine learning and pattern recognition.

Over the last 3-5 years, there has been an exponential growth in the number of companies pursuing this area and offering technological opportunities. In this regard, given the large number of applications in manufacturing and electronic-based industries, IIIT Sri City offers BTech program with specialization in CPS. IIIT Sri City is the first IIIT and one of the few Universities in India to offer such a specialization for BTech students. It is an interdisciplinary program that would train and prepare students for the next wave of required technological skill-sets.

For BTech in ECE with CPS specialization, a student has to do 20 extra credits. This includes 3 additional 4-credit courses and semester long internship. The courses to be done for CPS specialization are offered with practice oriented learning and typically include:

1. Micro-Sensors and Actuators (MSA)
2. Introduction to CPS
3. Applications of AIML in CPS

The semester-long internship is for 8-credits to be carried out in the industry that engage in different areas of CPS.

Moving forward, the Institute aims to set-up a CPS/IIoT lab for Master's program wherein we would collaborate with the Hi-Tech manufacturing industries in Sri City.

Focus on UG Research through Honors Programme

In order to promote UG-Research, we have a unique Honours programme wherein the students can work on a particular area under a faculty or group of faculty for a period of 4 semesters. They earn their Honours degrees by producing research publications or Intellectual property or a software/hardware product.

M.Tech. (AI) is a two year degree program in Artificial Intelligence at Indian Institute of Information Technology Sri City, Chittoor offered by the Department of Computer Science and Engineering. The two-year M.Tech. in Artificial Intelligence aims to bridge the urgent needs of the industry and to produce the high-end AI scientists and engineers for the society. The aim of the M.Tech. (AI) program is to produce graduates by providing rigorous training in the priority areas of Artificial Intelligence. The M.Tech. in AI strengthens the students such that they can become AI world leaders and shape India's future in a better way.

A total of 64 credits is necessary for completing graduation requirements. The total number of 64 credits is divided into two parts: a) course work that spans over the first two semesters requires the completion of 40 credits and b) the project work requires the completion of 24 credits that lead to M.Tech Dissertation.

Creation of Programme Advisory Groups: In addition to MTech programme in AI &ML, the institute has planned to launch new MTech programmes in areas including Cyber Security, Data Science, etc. These programmes are focused in emerging areas and critical inputs are required from industry and leading institutions from India and abroad. Therefore, it was proposed to form Programme Advisory Group (PAG) for intensive interaction for preparing the curriculum of such programmes. The PAGs shall also help to review and plan BTech specializations in thematic areas such as AI &ML, Cyber Security, Cyber-physical systems, Data Science. As per this, the PAG for AI & ML was formed with an initial set of experts including Ms. Shalini Kapoor IBM Fellow, Dr. Manish Gupta Director Google Research, Dr. Balaraman Ravindran IIT Madras and Dr. S. Venkatesh, Innovation Labs TCS Chennai.

4.2 PhD

IIITS has significant focus on research demonstrated through sponsored projects and scholarly publications. The institute offers MS and PhD programmes in both disciplines.

IIITS envisions to be a globally known institution for IT education, research and development. The institute has special thrust to attract and retain talented faculty members who can make a mark in teaching and research at the international level. The current faculty members at IIITS are from leading universities from India and abroad with excellent teaching and research credentials.

Indian Institute of Information Technology Sri City, Chittoor offers the following Ph.D. programmes that focus on all areas of computing:

- PhD in Computer Science and Engineering
- PhD in Electronics and Communication Engineering

4.3 Performance highlights

The institute has made significant progress in the first five years with mentoring support from IIT Hyderabad, and academic & research support from IIIT Hyderabad. In addition to leadership support of Shri. Srinivasa C Raju and Shri. M. Ravi Sanna Reddy, the institute received support from many early employees and managers from Sri City. A function was organized on 23rd April 2019 to celebrate the success to recognize the contributions of individuals. Prof. U. B. Desai, Director of IIT Hyderabad, Prof. P. J. Narayanan, Director, IIIT Hyderabad, Prof. Sathyanarayana, Director IIT Tirupati attended the programme.

A brainstorming session was conducted with critical inputs from Directors of the leading institutes. They mentioned that the location of IIIT Sri City is its major advantage, and the institute should leverage these advantages. It was suggested that linkages with the MNCs located in Sri City shall provide significant academic and research opportunities. In addition, proximity to Chennai also provides an opportunity to collaborate with all segments of industries and leading institutions. They advised IIIT Sri City to focus on getting the basics right, differentiate from other institutes by venturing into something super special, along with doing routine things correctly, listen to all ideas as people would be enthusiastic about the new institute, and to set the focus on the vision and mission of the institute.

4.4 Academic Performance

Semester	Subjects	No. of students enrolled	No. of students passed	Pass percentage
Spring 2019 (AY 2018: UG 1 - Sem 2)	Data Structures and Algorithms-1	271	255	94.1
	Signals and Systems	271	245	90.4
	Mathematics-2	271	263	97
	Basic Electronic Circuits	271	267	98.5
	Communication Skills-2	271	271	100.0
Spring 2019 (AY 2017: UG2 - Sem 4)	Fundamentals of Communication	209	209	100
	Computer and Communication Networks	209	194	92.8
	Machine Learning	156.0	154	98.7
	Database Management Systems	156	156	100
	Digital Signal Processing	52	51	98.1
	Analog Circuits	52	52	100
	Communication Skills-4	209	209	100

Semester	Subjects	No. of students enrolled	No. of students passed	Pass percentage
Spring 2019 (AY 2016: UG3 - Sem 6)	Deep Learning	69	69	100
	Cyber Physical Embedded Systems	21	21	100
	Measurements and Analysis for IoT	8	8	100
	Opto Nano Electronics	39	3	9100
	Micro Sensors and Actuators	33	33	100
	Wireless Networks	34	34	100
	Cyber Security	68	68	100
	Nature - Climate Change	49.0	45.0	91.8
	Bioinformatics	21	20	95.2
	Aptitude and Reasoning	153	153	100
	Advanced Communication Skills	19	19	100
	Operational Mathematics	32	32	100
	Contemporary Gandhi	97	97	100
	Personal Growth Programme	42	42	100
Entrepreneurship and Startups	30.0	30.0	100.0	
Monsoon 2019 (AY 2019: UG 1 - Sem 1)	Computer Programming	268	263	98.1
	Overview of Computers	268	263	98.1
	Digital Logic Design	268	247	92.2
	Discrete Mathematics and Probability Theory	268	263	98.1
	Communication Skills-1	268	267	99.6
Monsoon 2019 (AY 2018: UG2 - Sem 3)	Object Oriented Programming	252	246	97.6
	Advanced Data Structures and Algorithms	191	183.0	95.8
	Database Management Systems	191	188	98.4
	Computer Organization and Systems	191	190	99.5
	Control Systems	63.00	61.00	96.80
	Embedded and Intelligent Systems	63	61	96.8
	Circuits and Network Analysis	63	56	88.9
	Communication Skills-3	252.0	252.0	100.0

Semester	Subjects	No. of students enrolled	No. of students passed	Pass percentage
Monsoon 2019 (AY 2017: UG3 - Sem 5)	Service Oriented Application Development	157	157	100
	Artificial Intelligence	157	155	98.7
	Theory of Computation	157	151	96.2
	Digital Communication Systems	52	52	100.0
	Electromagnetics and Transmission Lines	52	50	96.2
	Introduction to VLSI	52	52	100.0
	Information Retrieval	65	65	100.0
	Computer Graphics and Multimedia	17	17	100.0
	Pattern Recognition	52	52	100.0
	Digital Image Processing	57	51	89.5
	Network Optimization	21	20	95.2
	Differential Equations	118	109	92.4
	Statistical Data Analysis	13	13	100.0
	Introduction to Cyber Security	80	77	96.3
	Energy and Environment Science	75	75	100.0
	Biotechnology and Biochemistry	25	24	96.0
	Entrepreneurship and Startups	58.00	57.00	98.3
	Aptitude and Reasoning	209.00	209.00	100.0
Monsoon 2019 (AY 2016: UG4 - Sem 7)	Control Systems	36	35	97.2
	VLSI	9	9	100.0
	Computer Graphics and Multimedia	28	28	100.0
	Pattern Recognition	7	7	100.0
	Digital Image Processing	6	2	33.3
	Network Optimization	25	25	100.0
	Introduction to Cyber Security	14	14	100.0
	Differential Equations	103	96	93.2
	Statistical Data Analysis	16	16	100.0
	Energy and Environment Science	53	51	96.2
	Bioinformatics	52	49	94.2
	Advanced Communication Skills	82	78	95.1
	IT Project Management	66	66	100.0
	Film Appreciation	119	119	100.0
	RL	10	10	100.0
	BTP2	138	138	100.0
	HON	11	11	100.0
	IA AIML	10	10	100.0

5. Placements and Internships (Summer internship and semester long projects)

5.1 Internships:

Internships are educational and career development opportunities, providing practical experience in a field or discipline. They are structured, short-term, supervised placements often focused around particular tasks or projects with defined timescales. An internship may be compensated, non-compensated or some time may be paid. The internship has to be meaningful and mutually beneficial to the intern and the organization.

Placement Cell IIIT Sri City encourages and provides opportunities to all placement registered students to undergo the internship program during their summer and 8th semester.

5.2 Campus Placement:

Campus placement is the program conducted within educational institutes to provide jobs to students pursuing or in the stage of completing the programme. In this programme, industries visit the colleges to select students depending on their ability to work, capability, focus and aim. IIIT Sri City has been performing exceptionally well in campus placements over the years. Usually, the placement process for the various courses offered by IIIT Sricity begins in September every year.

The first phase placements of IIIT Sri City begin in the first week of September. Top companies visit the campus of IIIT Sri City to recruit students and students are offered jobs in top national companies. At the same time, these companies offer lucrative salary packages to students. The average placement percentage of the institute stands at 70-90% every year. Some of the top companies that visit the campus of IIIT Sri City are Amazon, Infosys, Finsol, L&T, Value Momentum, Via.com, CA Technologies, E & Y, Honeywell, HSBC, Michelin Tyres, PayPal, TCS, Cisco, Hyundai Mobis, CoutureAI, Sorocco, Innovacer, ZS Associates.

2015 - 2019 Batch -Placement Details		
S.No.	Placement Statistics (On-Campus)	Number
1	Total number of students	103
2	Number of students expressed interest for campus placements	70
3	Percentage of students placed	77.14%
4	Number of higher studies opportunities received	8
5	Maximum salary received	19.5 LPA
6	Average Salary	7.6 LPA
7	Total Number of job offers	58
8	Number of Entrepreneurs	Nil

6. Scholarships and awards

Achievements by Faculty and Students: Dr. Prerana Mukherjee, Assistant Professor of CSE one amongst the 20 young scientists who represented India at the international forum as part of the 4th BRICS 2019 Young Scientists Conclave held in Rio de Janeiro, during 6-8 November 2019. She gave a talk under the theme of Cybersecurity where she discussed the career pathways in cybersecurity, key skill sets to pursue a career in cybersecurity, initiatives and research drives in India to promote cybersecurity at undergraduate and graduate levels. She also highlighted the efforts taken by IIIT Sri City to promote interest amongst undergraduate students to pursue research careers in Cybersecurity. Dr. Prerana Mukherjee, teamed up with Dr. Anupama Ray, a researcher at IBM Research India and two UG Students-Siddharth Kumar and Rutvik Reddy Vijjal to build a system to detect depression severity from a counselling session interview recording. This team participated and won the Depression Detection with AI challenge organized by the 9th Audio-Visual Emotion Challenge Workshop (AVEC) at 27th ACM International Conference on Multimedia 2019 held on 21st October, 2019 at Nice, France.

Sahaj Agarwal, final year CSE student won the Sorghum head detection challenge, conducted as part of Second International Workshop on Machine Learning for Cyber-Agricultural Systems (MLCAS 2019) at Iowa State University in September 2019. The challenge aims at identifying new machine learning approaches to advance the state-of-the-art in Sorghum head detection from UAV images. The detection of sorghum heads from crop row images will be useful in estimating yield for these farms. A *Static Mobile App* on water requirement for oil palm in Andhra Pradesh has been developed by Lushaank Kancherla, a second-year student of IIIT Sri City in collaboration with ICAR-Indian Institute of Oil Palm, Pedavegi, AP. The mobile App was released as Jal Shakti Abhiyan celebrations at ICAR-Indian Institute of Oil Palm Research, Pedavegi on 3 September, 2019. The App intends to create awareness among oil palm growers by giving information on the actual amount of water required for oil palm plantations for a given day or week or month.

7. Students Development Activities(SDC)

7.1 Ek Bharat Shreshtha Bharat (EBSB):

The first EBSB day was celebrated on 24 th January 2020 which also happened to be the statehood day of Uttar Pradesh , in the premises of the Indian Institute of Information Technology, Sri City. The programme started with a kite flying event for the students. Kite flying competitions are a regular feature in the skies of Uttar Pradesh. An attempt was made to emulate the same in our institute. The motivation and enthusiasm of the students were quite encouraging.



Dr. Shiv Ram Dubey, the Faculty Coordinator (Nodal Person) of Ek Bharat Shreshtha Bharat for the institute in the opening speech enlightened the students with his morsel of wisdom on the importance and necessity of cultural integration and its role in further strengthening the ties amongst the states and overall unity of India.



This was followed by a documentary on Uttar Pradesh. Students got to know about the various aspects of the state. It includes its demography, geography, literature, politics, etc. The documentary was followed by a singing performance by Mr. Debapriya Tula and Mr. Vaibhav Maheswari (both 3rd Year B.Tech students). The theme of the song was based on Rasleela, depicting the story of Radhe-Krishna, the very common feature in the households in Uttar Pradesh.



The event, in particular, focused on the literary aspects of Uttar Pradesh. Mr Ketan Lambat (UG2) threw light on the great poets who have emerged from this land through the various generations. Some of the prominent names included Tulasi Dasa, Amir Khusrau and Harivansh Rai Bachchan amongst the common contemporaries. A lucid account of their writing style and achievements was shared with the students. As per our plans, one great personality from Uttar Pradesh was also to be talked about through the programme. Students were told about Rani Lakshmi Bai and her struggle against British which was one of the milestones in our nation's struggle for independence.

The movie *Masaan* was screened considering the audience and the best attempt that could be made for students to get exposure to the lifestyle of a common man in Uttar Pradesh. The audience thoroughly enjoyed the movie.

7.2 Sports Activities

7.2.1 National Integration Marathon

The institute launched a new initiative to promote networking with local industries, institutions and the local community. A new annual event "National Integration Marathon", soaking the 'business city' in their bubbling energy and enthusiasm was organized on 30th January 2019 (Mahatma Gandhi's Death Anniversary). As this year marks Mahatma Gandhi's sesquicentennial birth anniversary, as homage to the great son of India and to spread the message of national integration and youth resurgence, the event was organised under the joint aegis of IIIT-Sri City (IIIT-S),



Institute for Financial Management and Research (IFMR) and Sri City Foundation. A total of 700 members from IIT Sri City, KREA university, Sri City companies and youth from villages adopted under Unnat Bharat Abhiyan took part in this event. The event was witnessed by thousands of people gathered in and around Sri City.

7.2.2 NSS

International Yoga Day was celebrated on 21st June 2019 in collaboration with Sri City Foundation. During this day IIT Sri City Students, Faculty and Staff practiced yoga along with Employees of various Companies in Sri City and Villagers around the Sri City.



7.2.3 IMPACT

Each batch of students graduating from the institute would be looking for opportunities for good jobs and higher studies. It will be one of the joyous moments if all the graduates are able to get what they aspire for, as they leave the campus.

Although the overall preparedness is relatively better, the institute is yet to demonstrate that the students are able to garner good jobs, comparable to the top few IITs. There is a need to focus on the strengths and areas of improvement at the individual level, through a systematic approach. It broadly focuses on individual-based mentoring for career guidance to achieve defined goals.

Fortunately, we have excellent faculty members who have received their education from leading universities, and some of them have significant industry experience. No other comparable institute has this unique advantage, which could be exploited beyond achieving excellence in teaching-learning and research. Thankfully, they also consider the success of the students, achieved through jobs and higher studies, as an integral part of their role as faculty.

IIT Sri City is delighted to announce that the faculty members have committed their support to a new mentorship programme, called **IMPACT**. Under this programme, a group

of students are assigned to each faculty for comprehensive guidance. They will guide and support the students to develop necessary skills & competencies and ensure that their career goals are achieved.

IMPACT is a semi-structured programme. While it is structured in setting goals, tracking progress and achieving final results for each student, it is unstructured in the process of engaging with students. Each faculty may use diverse formal-cum-informal approaches to achieve effectiveness.

The faculty members will be having regular interactions with the students on a weekly basis ensuring the success of the IMPACT programme and helping the students come out in flying colours.

IMPACT aims to have a significant impact, resulting in transformational outcomes. Many great things in the world have started in small ways. Everybody should work together to achieve great things which would also take the institution to greater heights.

Favourite 25

Support for Slow learners:

The institute has a significant focus on improving the quality of teaching-learning so as to create valuable opportunities for placements and higher studies for students. However, due to socio-economic and rural backgrounds, a section of the first year students is not able to cope up with the rest of the class. Special efforts are being taken to support such students. Firstly, students whose performance in the continuous assessment falls in the bottom 25% of the class are identified. These students are mentored and supported through a programme, called “Favourite 25”. Faculty, students, staff and others put in their voluntary efforts to help these students to improve their performance. In addition, Formative Assessment (FA) has been introduced to help students who fail in the semester



examinations. Under FA, students undergo additional classes and mentoring, and clear the subjects by completing all the continuous assessment and final examination before the beginning of next semester. This helps students to achieve the required level of

competences so that they were fully prepared to take up advanced courses without dropping for a year.



8. People/ Human Resources

8.1 Faculty:

In order to meet the present and future geo-socio-economic needs, we lay great emphasis on recruiting world class faculty who are strong in teaching and research areas.

All faculty members hold Ph.Ds from the finest institutes across the globe with a minimum of three years of post-doctoral experience and almost all have significant global exposure. They have published papers in various national and international journals and conference proceedings and attended / organized several workshops, both at national and international level.

SNo.	Name	Designation	Domain
1	Dr. G.Kannabiran	Director	CSE
2	Dr Uma Garimella	Professor	CSE
3	Dr Hrishikesh Venkata Raman	Associate Professor	CSE
4	Dr Rajendra Prasath	Associate Professor	CSE
5	Dr Viswanath Pulabaigari	Associate Professor	CSE
6	Dr Balaji Raman	Associate Professor	CSE
7	Dr Shiv Ram Dubey	Assistant Professor (Grade I)	CSE
8	Dr Snehasis Mukherjee	Assistant Professor (Grade I)	CSE
9	Dr Odelu Vanga	Assistant Professor (Grade I)	CSE
10	Dr Tapas Pandit	Assistant Professor (Grade II)	CSE
11	Dr Mrinmoy Ghorai	Assistant Professor (Grade II)	CSE

12	Dr.Balasubramanian Kandaswamy	Assistant Professor	CSE
13	Dr.Prerana Mukherjee	Assistant Professor	CSE
14	Dr Himangshu Sarma	Assistant Professor	CSE
15	Dr Kandimalla Divyabramham	Assistant Professor (Grade I)	ECE
16	Dr Raja Vara Prasad Yerra	Assistant Professor (Grade I)	ECE
17	Dr Achintaya Kumar Sarkar	Assistant Professor (Grade I)	ECE
18	Dr Priyanka Dwivedi	Assistant Professor (Grade II)	ECE
19	Dr A.Krishna Chaitanya	Assistant Professor	ECE
20	Dr Anish Chand Turlapaty	Assistant Professor	ECE
21	Dr K.Siva Prasad	Assistant Professor	ECE
22	Dr E.Paul Braineard	Assistant Professor	ECE
23	Dr Rangeet Mitra	Assistant Professor	ECE
24	Dr.Mainak Thakur	Assistant Professor	Mathematics
25	Ms Prasanna Lakshmi M	Lecturer	Mathematics
26	Mr R.Sundar	Lecturer	ECE
27	Dr Aneel Yagabathina	Junior Lecturer	English

8.2 Visiting Faculty

SNo.	Name of the faculty	Course Name
1	Communication in Organization	Dr.V.S.Ramakrishnan Dr.Shrimathy Venkatalakshmi Dr.P.R.Sujatha Priyadharshini
2	Internet of Things	Dr Munesh Singh (IIITDM)
3	Computer Graphics and Multimedia	Dr Pratik Shah
4	Threat Intelligence	Mr Chinmaya Mishra Mr Avkash Kathiriya
5	Soft Computing and Evolutionary of AI	Dr Monidipa Das
6	IT Project Management	Mr Jaydip Das Mr Sivasubramanian
7	Innovation and Entrepreneurship	Mr Satish Medapati
8	Foundation of Human Values	Ms Kranthi YS

9	Biotechnology	Dr Sailatha Ravi
10	Introduction to Cyber Security	Mr Mohan Ram Dr Harish Ramani
11	Cloud Computing	Dr Shridhar Domanal
12	Personal Growth Programme	Prof. Nagarani
13	Contemporary Gandhi	Mr G.Prasanna
14	Operational Mathematics	Mrs. Srivalli Kiranmayee
15	Advanced Communication Skills	Mr. Kezia Hitesh
16	Aptitude and Reasoning	Mrs. Shabana
17	Nature-Climate Change	Dr. Yogananda Rao

8.3 Staff

SNo.	Name	Designation
1	Evani VSSR Somayajulu	Manager, Registrar's Office
2	P V Someswara Rao	Asst. Manager (Accounts)
3	K Lalin Kumar Reddy	Assistant Manager-F&A
4	S.Jyothi Rani	Asst. Manager, EC Lab
5	G Siri Babu	Assistant Manager
6	Udiyapuram Tulsidas	Physical Education Instructor
7	P.Sreehari	Head, Security and Housekeeping
8	R Venu Gopal	Engineer, System Admin
9	Vijay Kumar S	Engineer, CSE Lab
10	Koteswararao B	Engineer, CSE Lab
11	A Korian	Engineer, EC Lab
12	T.Suryakiran	Administrative Assistant
13	M.Suresh	Tutor for EC Lab
14	M Sukirthi Vyas	Assistant-Academics
15	G.Muralikrishnan	Library Assistant
16	M. Tiripalu	Assistant (Accounts)
17	D.Sunil	Assistant (F&A)

18	P Naresh	Senior Intern
19	I Ravi Teja	Senior Intern
20	G.Prasuna Oduru	Resident Warden (Girls Hostel)
21	G.Venkaiah	Attender
22	D.Bhaskar	Supervisor-Housekeeping (Operations and Maintenance)
23	B.Suresh	Office Assistant
24	M.Karthik	Intern
25	Supriya Raj	Intern
26	T.G.Kirubakaran	Intern
27	N.Mahesh Babu	Intern
28	T.Suganya	Helper
29	P.Narendra	Technician
30	K.Giri	Electrician
31	K.Muniratnamma	Care taker - Girls Hostel
32	K.Kanakeswara Rao	Plumber

8.4 Consultants

SNo.	Name	Designation
1	Prof.G.V.Chalam	Advisor (Campus Life)
2	G S Yogananda Rao	Outdoor Activities
3	D.Hari Krishnam Raju	Consultant (Procurement & Transportation)
4	R.Selvaraju	Project Manager
5	Abhinay Irala	Senior Training and Placement Officer
6	M Michayelu	Training and Placement Officer
7	Dr.A.P.Aruna	Consultant (Research, Innovation and Entrepreneurship)

9. Committees of the Institute

9.1 Internal Complaints Committee

As per the Office Order No.IIITS/RO/OO/ICC/2019-20/02, dt.27.08.2019. the following Internal Complaints Committee is reconstituted to address issues and grievances pertaining to sexual harassment of women at workplace as per “*Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal), Act 2013*”

- Dr.Prerana Mukherjee
Assistant Professor : Presiding Officer
- Prof.G.V.Chalam
Advisor-Campus Life : Member
- Dr.A.P.Aruna
Consultant (Research, Innovation and Entrepreneurship) : Member
- Mrs.Prasanna Lakshmi M
Lecturer (On contract) : Member
- Mrs. Sumathi Venkatesh
Chairperson, Skill Trust, Anna Nagar, Chennai-40 : External Member

9.2 Anti Ragging Committee

Complying with the directives of the Hon’ble Supreme Court of India, the Institute has formed the following anti-ragging committees and squads for overseeing the implementation of the provisions of the verdict with immediate effect as per the Office Order No.IIITS/RO/Anti-ragging/2019-20/01, dt.09.08.2019

1. Institute Level Anti-ragging Committee:

- Dr P Viswanath, Associate Professor and Registrar I/c. .. Chairman
- Dr. K Divyabramham, Member
- Dr.Anish Turlapati, Member
- Dr Mainak Thakur, Member
- Ms. Srivalli Kiranmayee, Member
- Dr.G.V.Chalam, Member
- Mr Tulasidas Udiyapuram, Member
- Mr EVSSR Somayajulu, Member
- Mr P.Sreehari, Member

2. Institute Level Anti-ragging squads: (The Committee breaks into 5-6 squads)

- Dr P Viswanath, Associate Professor and Registrar I/c .. Chairman
- Dr. K Divyabramham, Member
- Dr.Anish Turlapati, Member
- Dr Mainak Thakur, Member
- Ms. Srivalli Kiranmayee, Member
- Faculty members, Member
- Dr.G.V.Chalam, Member
- Mr Tulasidas Udiyapuram, Member
- Mr EVSSR Somayajulu, Member
- Mr P.Sreehari, Member
- All Hostel Caretakers, Member

3) Hostel Level Anti-ragging Squads (One for each hostel):

- Wardens for each hostel ..Convenor
- All other Caretakers of the Hostels, Member
- Dr.G.V.Chalam, Member
- Mr Tulasidas Udiyapuram, Member
- Mr P.Sreehari, Member

9.3 Academic Disciplinary Committee

As per the Office Order No.IIITS/Disciplinary Committee/2019/01/05, dt.02.01.2019, the following Academic Disciplinary Committee was constituted to handle the indiscipline cases of Academic misconduct relating to students. The Disciplinary Committee will investigate the cases as and when arises. The Committee based on the issues observed or reported will examine and submit its report with recommended action to the Dean/Director.

- Prof.Rajendra Prasad, Faculty Member – Chairperson
- Prof. G.Venkata Chalam, Advisor Campus Life – Member Secretary
- Prof. Raja Vara Prasad, Faculty Member – Member
- Prof. Hrishikesh V Raman, Faculty Member - Member
- Prof Prerana Mukherjee, Faculty Member - Member

9.4 Hostels Disciplinary Committee

As per the Office Order No.IIITS/Disciplinary Committee/2019/01/05, dt.02.01.2019, the following Hostels Disciplinary Committee was constituted to handle the indiscipline cases of Non-Academic misconduct relating to students. The Disciplinary Committee will investigate the cases as and when arises. The Committee based on the issues observed or reported will examine and submit its report with recommended action to the Dean/Director.

- Prof. P.Viswanath, Chief Warden (Faculty In-charge of Hostels) – Chairperson
- Prof. G.Venkata Chalam, Advisor Campus Life - Member Secretary
- Mr P.Ramachandra Reddy, Hostel Warden (Boys) - Member
- Mrs Srivalli Kiranmayee, Lady Faculty – Member
- Prof. Divya Brahmam, Faculty member – Member
- Mrs O.Gnana Prasuna, Hostel Caretaker (Girls) - Member

10. Research and Development

Research & Development:

The institute received Sponsored Research and Consultancy Projects from October 2018 to June 2019 with a total value of 196.81 from funding agencies DST, UKIERI, Indo-Taiwan (GITA/ MOST), CC&BT, MEITY, Ministry of Com. & Industry in the broad areas such as Sensors, Multihopping and Analytics - for Real-Time interconnection of Village Wells (SMART Village Wells), Development of Hybrid Method to Analyze Radiation Characteristics of Dipole Antenna Near perfectly conducting Cylindrical-curved Screen, Digital Twin Modelling for Automation, Maintenance & Monitoring in Industry 4.0 Smart Factory, Development of Deep Learning based Hashing Techniques for Image Retrieval, Design and Fabrication of Autonomous Passenger Drone and Research on Industry 4.0 Readiness Assessment for SMEs (5 sectors: Automotive, Pharma, Agriculture Machinery, Garments and Textiles and Food processing).

During the period of October 2018 to June 2019, the faculties, along with the PG & UG students and their collaborators have published an impressive number of 25 journal papers. This involves mostly international journal publications such as in Elsevier, IEEE Transactions, Journal of Semiconductor Devices, Solar Energy, Springer, SAE Mobility Engineering and Journal of Business Performance and Supply Chain Modelling. Notably, the faculty members and the students have presented in 48 national and international conferences during this period. Further, an edited book on a very relevant topic, 'Mining Intelligence and Knowledge Exploration' has been published in Lecture Notes on Computer Science (LNCS), Springer.

Progress in Research & Development: Two projects were sanctioned by major funding agencies. (1) Analysis of Biomedical EEG signals by DST Core (2019-21), Investigators- Dr. Anish Chand Turlapaty and Dr. Shiv Ram Dubey (35 Lakhs) (2) Design and development of Bio Inspired Autonomous surface vehicle (ASV), Naval Research Board (2020-2022) Investigators: Dr. Hrishikesh Venkataraman and Dr. S.R. Pandian from IIITDM Kancheepuram (46 Lakhs). In addition, a total of 16 Journal Publications and 28 Conference publications were published/presented during the period of reporting. Two workshops (Chennai & Pune) were conducted as part of the project on Industry 4.0 for SMEs.

10.1 Research Publications

Publication in Journals

- H. Venkataraman, S. Narayanaswamy, and S. Chakaraborty, "Real-Time Pothole Detection", SAE Mobility Engineering Magazine, Vol. 6, No. 2, June 2019.
- A. Sai Charan, N. Jaswanth, R. Assalg and H. Venkataraman, "Analysis of Traffic Related Factors and Vehicle Environment in Monitoring Driver's Driveability", International Journal of Intelligent Transportation Systems Research, Springer, pp. 1-11, August 2019.
- Vanga Odelu, Sourav Saha, Rajendra Prasath, Lakshminarayana Sadineni, Mauro Conti, Minh Jo, "Efficient and Provably Secure Authentication Scheme for Wireless

Body Area Networks, Computers and Security" Journal, Elsevier Science. Vol 83, Pages 300-312, June 2019.

- U.K. Singh, R. Mitra, V. Bhatia, and A.K. Mishra, "Kernel LMS based Estimation Techniques for Radar Systems", IEEE Transactions on Aerospace and Electronic Systems, vol. 55, no.5, Oct. 2019.
- U.K. Singh, R. Mitra, V. Bhatia, and A.K. Mishra, "Range and Velocity Estimation using Kernel Maximum Correntropy based Non-linear Estimators in Non-Gaussian Clutter", IEEE Transactions on Aerospace and Electronic Systems, October 2019
- S. Jain, R. Mitra and V. Bhatia, "KLMS-DFE based adaptive postdistorter for visible light communication", Optics Communications, vol. 451, pp. 353-360, November 2019.
- S.R. Dubey, S. Chakraborty, S.K. Roy, S. Mukherjee, S.K. Singh and B.B. Chaudhuri, "diffGrad: An Optimization Method for Convolutional Neural Networks", IEEE Transactions on Neural Networks and Learning Systems, Dec 2019. DOI: 10.1109/TNNLS.2019.2955777. (Accepted)
- S.R. Dubey, "Local Directional Relation Pattern for Unconstrained and Robust Face Retrieval", Multimedia Tools and Applications, Vol. 78, No. 19, pp. 28063-28088, Oct 2019. (Springer)
- S.R. Dubey, S.K. Roy, S. Chakraborty, S. Mukherjee and B.B. Chaudhuri, "Local Bit-plane Decoded Convolutional Neural Network Features for Biomedical Image Retrieval", Neural Computing and Applications, June 2019. DOI:10.1007/s00521-019-04279-6. (Springer) (Accepted)
- S.R. Dubey, "Face Retrieval using Frequency Decoded Local Descriptor", Multimedia Tools and Applications, Vol. 78, No. 12, pp. 16411-16431, June 2019. (Springer)
- S.K. Roy, S.R. Dubey, and B.B. Chaudhuri, "Local ZigZag Max Histograms of Pooling Pattern for Texture Classification", IET Electronics Letters, Vol. 55, No. 7, pp. 382-384, April 2019.
- P. Vudumula and Siva Kotamraju, "Effect of temperature on the electrical characteristics of n/p type junction less FET: Physics based simulation", Materials Science Forum, Vol.963, pp 679-682, 2019.
- P. Vudumula, Srivalli Kiranmayee and Siva Kotamraju, "Improved oxide field and switching performance obtained in CoolSiC trench MOSFET by incorporating super junction concept", Semiconductor Science and Technology, Vol.34, 015010, 2019.
- Siva Kotamraju, M. Sukeerthi, EP Suresh and M. Sankaran, "Study of degradation in InGaP/InGaAs/Ge multi-junction solar cell characteristics due to irradiation induced deep level traps using finite element analysis", Solar Energy, Vol.178, pp 215-221, 2019.
- Siva Kotamraju, M. Sukeerthi, and EP Suresh, "Modeling of InGaP/InGaAs-GaAsP/Ge multiple quantum well solar cell to improve efficiency for space applications", Solar Energy, Vol.178, pp 215-221, 2019.
- Siva Kotamraju, M. Sukeerthi, and EP Suresh, "Modeling of InGaP/InGaAs-GaAsP/Ge multiple quantum well solar cell to improve efficiency for space applications", Solar Energy, Vol.178, pp 215-221, July 2019.
- Siva Kotamraju and P. Vudumula, "Improved device characteristics obtained using a novel high-K dielectric stack for 4H-SiC n-IGBT: HfO₂-SiO₂-AlN", Materials Science Forum, Vol.963, pp 647-650, July 2019

- P. Vudumula and Siva Kotamraju, "Effect of temperature on the electrical characteristics of n/p type junction less FET: Physics based simulation", *Materials Science Forum*, Vol.963, pp 679-682, July 2019.
- Pavan Vudumula and Siva Kotamraju, "Design and Optimization of 1.2-kV SiC Planar Inversion MOSFET Using Split Dummy Gate Concept for High-Frequency Applications", *IEEE Transactions on Electron Devices*, Vol.99, Nov.2019
- A. Sai Charan, S.V. Jallepalli and H. Venkataraman, "Road Parameter-based Driver Assistance System for Safe Driving", *SAE International Journal of Connected and Automated Vehicles*, 2(4), pp. 253-262, Jan 2020
- H. Venkataraman and K.L. Harshini, "Dual Priority: Real-Time and Integrated Device and Network-centric Wireless Network Selection", *IET Communications*, March 2020.
- S.K. Roy, S.R. Dubey, S. Chatterjee and B.B. Chaudhuri. FuSENet: Fused Squeeze-and-Excitation Network for Spectral-Spatial Hyperspectral Image Classification. *IET Image Processing*, March 2020. DOI:10.1049/iet-ipr.2019.1462. (Accepted)
- S.R. Dubey and S. Mukherjee, "LDOP: Local Directional Order Pattern for Robust Face Retrieval", *Multimedia Tools and Applications*, Vol. 79, pp. 6363–6382, March 2020. (Springer)
- S.K. Roy, G. Krishna, S.R. Dubey and B.B. Chaudhuri, "HybridSN: Exploring 3D-2D CNN Feature Hierarchy for Hyperspectral Image Classification", *IEEE Geoscience and Remote Sensing Letters*, Vol. 17, No. 2, pp. 277-281, Feb 2020.
- S. Basha, S.R. Dubey, V. Pulabaigari and S. Mukherjee, "Impact of Fully Connected Layers on Performance of Convolutional Neural Networks for Image Classification", *Neurocomputing*, Vol. 378, pp. 112-119, Feb 2020. (Elsevier)
- S.K. Roy, B. Chanda, B.B. Chaudhuri, D.K. Ghosh, and S.R. Dubey, "Local Jet Pattern: A Robust Descriptor for Texture Classification", *Multimedia Tools and Applications*, Vol. 79, pp. 4783–4809, Feb 2020. (Springer)
- S.K. Roy, D.K. Ghosh, S.R. Dubey, S. Bhattacharyya, and B.B. Chaudhuri, "Unconstrained Texture Classification Using Efficient Jet Texton Learning", *Applied Soft Computing*, Vol. 86, pp. 105910, Jan 2020. (Elsevier)
- S. Banerjee, S. Roy, V. Odelu, A.K. Das, S. Chattopadhyay, Joel J. P. C. Rodrigues, and Y.H Park. "Multi-authority CP-ABE-based anonymous user access control scheme with constant-size key and ciphertext for IoT deployment", in *Journal of Information Security and Applications* (Elsevier), August 2020.

10.2 Conference Proceedings/Presentations

- A. Nagaswathi, A.C. Turlapaty and B. Gokaraju, "SVM based Classification Of sEMG Signals using Time Domain Features for the Applications towards Arm Exoskeletons", *AIR*, 26:1-26:5, 2019
- A. Sai Charan, R. Assfalg and H. Venkataraman, "Integration of Head & Eye-Tracking for Driver Monitoring in Vehicular Environment", 15th World Conference on Transport Research (WCTR), Mumbai, India, 29 – 31 May 2019.
- K. Maheswari, Ch. Mounica, K. Harshitha and H. Venkataraman, "Sensor fusion-based pothole detection in Indian roads", Poster, 3 rd Intl. Symposium on Cyber Physical Systems, IISc Bangalore, 15 - 16 July 2019

- A. Ray, S. Kumar, R. Reddy, P. Mukherjee and R. Garg, "Multi-level Attention Network using Text, Audio and Video for Depression Prediction", AVEC, International Conference on Multimedia, (MM) pp. 81-88, October 2019.
- Charitha R, Kalpana P and Raja Vara Prasad "Integrated Framework for Farmer Centric Agriculture Applications Using IoT Architectures" IEEE ANTS, GOA, India, 16-19th December 2019
- Purushothama. B.R. Veena Thondaiyar and Rajendra Prasath, Mining Intelligence and Knowledge Exploration - 7th International Conference, MIKE 2019, Goa, India, December 19-22, 2019
- S. Jain, R. Mitra and V. Bhatia, "Multivariate-KLMS Based Post-Distorter for Nonlinear RGB-LEDs for Color-Shift Keying VLC", IEEE PIMRC Istanbul, Turkey, September 2019
- U.K. Singh, R. Mitra, V. Bhatia, and A. K. Mishra, "Vector-Valued KLMS based Multiple Target Range and Velocity Estimation using IEEE 802.11p Waveform for Autonomous Vehicle", IEEE ANTS, Goa, India, December 2019.
- R. Mitra et. al., "Low Complexity Kernel-MSER based Equalizer for Crosstalk Mitigation in Multicore Fiber Communication", IEEE ANTS, Goa, India, December 2019.
- A. Singh, A. Garg, J. Zhou, S.R. Dubey and D. Dutta, "NASIB: Neural Architecture Search withIn Budget", NeurIPS Workshop on Meta-Learning (MetaLearn), Vancouver, Canada, December 2019.
- Y. Srivastava, V. Murali and S.R. Dubey, "A Performance Comparison of Loss Functions for Deep Face Recognition", 7th Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG), India, Dec 2019.
- V.K. Repala and S.R. Dubey, "Dual CNN Models for Unsupervised Monocular Depth Estimation", 8th Intl. Conference on Pattern Recognition and Machine Intelligence (PReMI), India, Dec. 2019.
- Y. Srivastava, V. Murali and S.R. Dubey, "PSNet: Parametric Sigmoid Norm Based CNN for Face Recognition", 3rd IEEE Conference on Information and Communication Technology (CICT), IIIT Allahabad, India, Dec 2019
- 6. K.V.S. Vineeth, Y.R.V. Prasad, S.R. Dubey and H. Venkataraman, "LED COM: A Novel and Efficient LED Based Communication for Precision Agriculture", Third IEEE Conference on Information and Communication Technology (CICT), IIIT Allahabad, India, Dec 2019
- S.P. Teja Reddy, S.T. Karri, S.R. Dubey and S. Mukherjee, "Spontaneous Facial Micro-Expression Recognition using 3D Spatio Temporal Convolutional Neural Networks", IEEE Intl. Conference on Neural Networks (IJCNN), Budapest, Hungary, July 2019.
- C. Nagpal and S.R. Dubey, "A Performance Evaluation of Convolutional Neural Networks for Face Anti Spoofing", IEEE International Joint Conference on Neural Networks (IJCNN), Budapest, Hungary, July 2019.
- R.K. Thakur and S. Mukherjee, A Conditional Adversarial Network for Scene Flow Estimation, Proc. of IEEE Ro-MAN, New Delhi, India, Oct 2019.
- C.S. Voruganti and Viswanath P, "An Interpretable Indic Optical Character Recognition through Domain Adaptation and Discriminative Localization Based Techniques", , IDC-2019, the ninth IDRBT doctoral colloquim, IDRBT, Hyderabad, December 2019.

- C.S Vorugunti, P. Mukherjee and Viswanath P, "A Novel HL-OSV Dataset and Depthwise Separable CNN based Online Signature Verification", 5th International Conference on Document Analysis and Recognition (ICDAR 2019), pages 21-23, Sydney, Australia, Sep 2019.
- C.S Vorugunti, P. Mukherjee and Viswanath P, "A Light weight and Hybrid Deep Learning Model based Online Signature Verification", 5th International Conference on Document Analysis and Recognition (ICDAR 2019) Workshop, Sydney, Australia, Sep 2019.
- C.S. Voruganti, R.K. Sai Gorthi and Viswanath P, "Online Signature Verification by Few-shot Separable Convolution Based Deep Learning", 5th International Conference on Document Analysis and Recognition (ICDAR 2019), Sydney, Australia, Sep 2019.
- V Sekhar, P Mukherjee, DS Guru, Viswanath P, "OSVNet: Convolutional Siamese Network for Writer Independent Online Signature Verification", , OSVNet: 5th International Conference on Document Analysis and Recognition (ICDAR 2019), Sydney, Australia, Sep 2019.
- C.S. Voruganti, S. Chakravarthy, Viswanath P, "Indian Language Optical Character Recognition Through Bharati Script based Deep Convolutional Neural Networks", Language and Workshop workshop, CVPR, Long Beach, USA, May 2019.
- R. Avenash and Viswanath P, "Semantic Segmentation of Satellite Images using a Modified CNN with Hard-Swish Activation Function", 14th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications - Volume 4: VISAPP, 413-420, Prague, Czech Republic, 2019.
- K. Maheshwari, Ch. Mounika, K. Harshitha and H. Venkataraman, "PotSense: Pothole Detection on Indian Roads using Smartphone Sensors", ACM Autonomous and Intelligent Mobile Systems (AIMS), IEEE/ACM COMSNETS, 8 - 11 Jan 2020.
- C.S Vorugunti, P. Mukherjee and Viswanath P, "Online Signature Profiling using Generative Adversarial Networks, Graduate Forum, 12th International Conference on COMMunication Systems & NETWORKS (COMSNETS), pp:894-896, Jan 2020.

10.3 Sponsored Projects

- Dr. Anish Chand Turlapaty (PI)- Dr. Shiv Ram Dubey, Dr.Balakrishna Gokaraju, The University Of West Alabama (Co-PI)- SERB – CRG-"EMGNet: Development of Deep Learning Based Model for Hand Movements Classification using Surface EMGSignals- Rs.34,06,558-4-Feb-20-3-Feb-22
- Dr. Shiv Ram Dubey- SERB – ECR="Development of Image Retrieval Methods for Biomedical and Health Informatics"- Rs.18,52,330-27-Jul-17-26-Jul-20
- Dr. Shiv Ram Dubey- Taiwanese partner - Prof. Wei-Ta Chu, National Chung Cheng University, Taiwan- GITA -DST –TWN-"Development of Deep Learning based hashing techniques for image retrieval"- Rs.28,28,580 -19 Feb 2020-18 Feb 2023
- Dr. Hrishikesh Venkataraman-DST-DAAD-Indo-German-"Driver's drivability measurements and recommendations for adaptive system control in vehicles (Smart-vehicle)"-Total Project Cost-Rs.10,26,000-30-Jun-16 to 31-Jul-19
- Dr. Hrishikesh Venkataraman- SERB – ECR-"Seamless Multihop Communication for Road Traffic Control in Vehicular Networks (Smart-VAN)-Total Project cost-Rs.12,19,130-18-Feb-17-17-Jan-20

- Dr. Hrishikesh Venkataraman- Hella-"Camera-based Lane and Road Boundary Detection during Night-Time Driving"-Rs.16,83,000-13-Jul-18-12-Jul-21
- Dr. Hrishikesh Venkataraman (PI)- Dr. Raja Vara Prasad Dr. P Viswanath (Co-PI)DST – ICPS-"Sensors, Multi-hopping and Analytics-for real-Time interconnection of village wells (SMART Village Well)"- Rs.25,00,000-28-Dec-18-27-Dec-21
- Dr. Hrishikesh Venkataraman (PI), Dr. Raja Vara Prasad(Co-PI)- DST-INT-UK-"Digital Twin Modeling for Automation, Maintenance and Monitoring in Industry 4.0 Smart Factory"- Rs.23,53,344-16-Jul-19-15-Jul-21
- Dr. Hrishikesh Venkataraman (PI), Dr. S R Pandian, IITDM Kancheepuram (Co-PI)- DRDO-NRB-"Design and Development of Bio-inspired Network of Autonomous Underwater Vehicles"- Rs.46,88,605-7-Feb-20-6-May-22
- Dr. Raja Vara Prasad Y- MEITY - CC & BT-"Design and Fabrication of Autonomous Passenger Drone"- Rs.36,18,000-26-Jul-19-25-Jul-22
- Dr. Kadimalla Divyabramham- SERB – ECR-"Development of Hybrid Method to Analyze the Radiation Characteristics of a Dipole Antenna Near a Perfectly Conducting Cylindrically Curved Screen"- Rs.41,40,400-26-Mar-19-25-Mar-22
- Dr. Snehasis Mukherjee- SERB –ECR-"Smart Surveillance Based Recognition and Prediction of Ongoing Events in Videos Using Depth Information"-Total Project cost Rs.15,57,090-21-Sep-16-20-Sep-19
- Dr. Sivaprasad Kotamraju- Respond – ISRO-"Design, modeling and simulation of GaAs based 111-V semiconductor multi junction sola structures for space applications"- Total Project Cost Rs.33,18,000-16-Dec-16-15-Dec-19

10.4 Patents Filing

- H. Venkataraman and "AnjaliPoornima K, "System and Method to Detect Potholes and Obstacles on Road under Low Illumination", Indian Patent, filed on 19th Nov. 2019.
- H. Venkataraman and S.V. Jallepalli, "System and Method for Real-Tie Control of Speed and Position", Indian Patent, filed on 16th Dec. 2019.

11. Innovation and Entrepreneurship Development

Focus on Innovation and Entrepreneurship: The E-Cell of IIIT Sri City has taken a major step to formalize all activities relating to Innovation and Entrepreneurship development. A new section- Research, Innovation and Entrepreneurship has been created to spearhead all the activities. Formal inauguration of E-Cell at IIIT Sri City was held on 03 October 2019. *Shri. Ganapathy Venugopal*, Co-Founder and CEO, Axilor Ventures, Bengaluru inaugurated the activities and suggested the E-Cell members in IIIT Sri city to focus on making the institute be known for some specialized areas; build the required infrastructure within the institute; connect with the Faculty who have experience in the expert area and bridge with corporate to get problems to work and bring viable solutions.

The E-Cell and Innovation Cell of IIIT Sri City organized a two-day workshop *Ideation and Prototyping* on 02-03 November 2019. The workshop was facilitated by *Shri. Derick Jose*, Co-Founder Chief Data Scientist at Flutura Decision Sciences and Analytics, Bengaluru. The objective of Workshop was to spot problems worth solving and unlock inner creative

instincts and bring it out thru tangible prototypes. Ten teams of students identified high-value problems in three verticals Healthcare, Education and Agriculture. Using about 14 worksheet templates to be filled in about 10 hours, the teams presented their outcomes through a 3- minute pitch covering three perspectives- problem, solution, and business model. Students presented business ideas, including job portal, clinical counselling for mental health, Farm query services etc.

12. Other activities

12.1 Convocation

The First Convocation of the institute was conducted on 23rd April, 2019. **Shri M. Venkaiah Naidu, Honourable Vice-President of India** graced the occasion as the Chief Guest and delivered the convocation address. A total of 135 UG students graduated in 2017 and 2018 batches and the first ever MS student received their degrees. The convocation was attended by Prof. U. B. Desai, Director of IIT Hyderabad (Former Mentor Director of IIIT Sri City), Prof. P. J. Narayanan, Director, IIIT Hyderabad, Prof. Sathyanarayana, Director, IIT Tirupati and officials of Government of Andhra Pradesh.



Mr. Venkaiah Naidu presented gold medals to the toppers in 2017 & 2018 in ECE and CEC streams, viz. Varshita, Krutikaran Singh Bharadwaj, Aiswarya and Santoshini Reddy, all in absentia. Their parents received the medals on their behalf.

About 500 invitees including CEOs and senior executives of Sri City companies, parents, visiting faculty members and others attended the programme. As part of convocation address, the Vice President of India congratulated the institute for making significant achievements in first five years. Among other things, he appreciated the institute for setting up a Center for Smart Cities and adopting five villages under Unnat Bharat Abhiyan to support rural development.

Graduating batch of 2017 - Student details

- Total no. of Graduands: 53
 - B.Tech with Honours in Computer Science and Engineering: 02
 - B.Tech with Honours in Electronics and Communication Engineering: 05
 - B.Tech in Computer Science and Engineering: 28
 - B.Tech in Electronics and Communication Engineering: 18

Graduating batch of 2018 - Student details

- Total no. of Graduands: 83
 - B.Tech with Honours in Computer Science and Engineering: 11
 - B.Tech with Honours in Electronics and Communication Engineering: 11
 - B.Tech in Computer Science and Engineering: 32
 - B.Tech in Electronics and Communication Engineering: 28
 - MS by Research in Computer Science and Engineering: 01

12.2 Workshops

MHRD Conference on AI Education and Research, 04 July 2019: This conference was organized at IIT Delhi on 4th July 2019 with participation from IITs, IISc, NITs and IIITs. The objective of the conference was to assess the present status and propose a set of actions to position India as the leader in AI and related technologies. IIIT Sri City was invited to lead a session on AI Education. Based on outcomes of the session, Dr. G. Kannabiran, Director IIIT Sri City made a presentation covering the key aspects including: (1) Funding for creating institutional level infrastructure (2) Enabling availability of data for building and testing applications (3) Centralized Portal for curriculum, syllabus, resources, and experts (4) National-level Faculty Development Programmes (5) M.Tech programme in AI & Machine Learning (6) Policy level interventions for enabling industry collaboration (7) Support for international collaboration for curriculum design and delivery (8) Core committee involving IITs, NITs, IIITs for driving AI Education initiatives and (9) Annual National Conferences and Quarterly Regional workshops for best practices sharing among institutions.

MoA with Data Security Council of India (A NASSCOM CoE): A new collaboration is established by IIIT Sri City Data Security Council of India (DSCI), set up by NASSCOM through a MOA for conducting joint academic and research programs in Cyber security. The MoA is to support the new BTech specialization in Cyber Security being launched by IIIT Sri City from 2019-20 academic year. The MoA is valid for a period of 4 years and designed to have Hackathons, Skill building training programme, Collaborative projects, Market research and Workshops on Cyber Security and privacy in various DSCI initiatives engagement like Skill building, Cyber security industry building and any other similar programmes.

Workshop on AI & Machine Learning, 8-9 November 2019: IIIT Sri City has launched a new UG-Specialization in AI & Machine Learning under BTech (CSE) programme from

2019-20 academic year. Students shall undergo four courses and a semester-long project for a total of 20 credits in the 3rd and 4th years. The courses include AI, ML, Deep Learning, Reinforcement Learning and Industrial Applications of AI & ML. As part of this specialization, a two-day workshop on Industrial Applications of AI & ML was organized in Bengaluru on 08-09 November 2019. Keynote address was delivered by Dr. Manish Gupta, Director Google Research India and other speakers were from IBM, Intel, ABB, Swiggy, Flutura etc. The workshop also had presentations by successful AI-based Startups to share their experiences. Faculty members and select students attended the workshop.

Workshop on Cyber Security, 24th November 2019: We at IIIT Sri City planning to focus on UG-led academic and research/ innovation programmes in Cyber Security. We had organized a workshop earlier this year and offering an introductory course on Cyber Security. A one-day workshop was organized on 24th November 2019 in collaboration with DSCI for the benefit of students. Senior experts from Accenture, Ernst & Young, Infosys and Director of Cyber Security at NYU Dubai Campus delivered sessions in the workshop. A hands-on workshop was also organized as part of the workshop. The workshop outcomes are used to design the courses under the specialization on Cyber Security.

Formation of Student Council and Clubs: Co-curricular and Extra-Curricular activities are an integral part of learning and students' overall development. The Student Council was set up for the first time with the President, Vice-President, Secretary, Joint Secretary and four executive members representing the clubs, namely Technical Secretary, Cultural Secretary, Social Secretary and Sports Secretary. The four types of clubs are: *Technical Clubs:* Gradient-Programming Club, AI-ML Club, Robotics Club, Data Science Club, IoT Club, Cyber Security Club, IOTA-Projects Club and E-Cell. *Cultural Clubs:* Dance Club, Music Club, Arts and Design Club, Literature and Theatre Club, Photography Club and Film Club. *Social Clubs:* Nature Club, Hope Elite (NSS) and Favourite 25 (club for mentoring slow learners among first year students). *Sports Clubs:* Football Club, Basketball Club, Cricket Club, Throw ball Club and Indoor Games Clubs. Each student is encouraged to be part of a minimum of one club under each type. Various activities are being conducted under the mentorship of faculty members.

Workshop at Ericsson Research Chennai, 01 November 2019: This workshop was organized as part of the course on Industrial Applications of AI & ML with full support of Ericsson Research. The workshop covered six sessions by researchers of Ericsson on various applications through demonstration of implementation aspects. Students were also given month-long mini projects on specific application areas. It is proposed to collaborate with Ericsson research on mutually beneficial areas.

Workshop on Socially Focused Technical Education, 6-7 December 2019: Technological advancements are considered to be the engine of growth in many sectors such as manufacturing, banking & financial services, health care, agriculture, retail, etc. Technological advancement should be for the benefit of Society including the future generations. Given this background, IIIT Sri City in collaboration with NITTTR Chennai organized a 2-day national workshop on *Socially Relevant Technical Education-Exploring*

Cooperation-oriented Actions at NITTTR Chennai campus. This pioneering workshop offered an opportunity to understand the complexities in achieving the technology-society synergy and to propose a set of actionable strategies for administrators and educators of the technical education system. The workshop was inaugurated by *Prof. Anil D. Sahasrabudhe*, Chairman, All India Council for Technical Education and covered sessions by leading technology experts from Industry, social science and successful socially-focused Startups. A special session was conducted by *Sri Sri Ravi Shankar, Funder of Art of Living*. IIIT Sri City has aligned with The Art of Living through an MoU to conduct formal courses “Professional Skills Programme” to the BTech students of IIIT Sri City.

NOSSCOM Conference for IIIT Directors, 13 December 2019: It was proposed in the IIIT Coordination forum and Standing Committee of Council & Coordination Forum (SCCF) of IIITs to dedicate targeted efforts to create a unique brand for IIITs. Ms. Debjani Gosh, President NASSCOM and member of SCCF proposed that meetings of the IT industry leaders and the IIIT Directors may be organized periodically to understand industry trends and explore strategies for better alignment of academic and research programmes of IIITs. As Secretariat of IIIT Coordination Forum, IIIT Sri City led the efforts to coordinate with NASSCOM for organizing Industry-IIITs conference in Delhi. Inaugurated by Shri. Ajay Sawhney, Secretary, MeitY, the workshop covered sessions by senior executives of AWS, Ericsson, Wipro and Flipkart. In addition to presentations on technology trends, focused discussions were held to promote collaboration between industry and IIITs. Dr. Rakesh Sarwal, Additional Secretary MHRD led the discussion and suggested that an annual plan of actions may be drawn up for achieving effective collaboration. The workshop was attended by Directors of IIITs in PPP and CFTI modes. Directors of IIITs in Hyderabad, Bengaluru and Delhi were also invited for the workshop.

Third Visitor’s Conference held in Rashtrapathi Bhawan, 14 December 2019: The conference was attended by Directors of IIITs, Vice-Chancellors of Central Universities, Directors of NIPER, etc. The discussions and presentations were organized in six Sub-Groups-Teaching and Learning, Promotion of Research, Innovation and Entrepreneurship, filling up vacancies including foreign faculty, Completion of infrastructure projects and Creating Alumni funding and activities. IIIT Sri City was chosen to lead the discussion and presentation on *Promotion of Research*. The presentation by Prof. G. Kannabiran focused on improving sponsored projects, scholarly publications and creating Intellectual Properties in member institutions. Specific requirements with reference to IIITs in PPP mode were also highlighted as part of the presentation.

12.3 Responsibility towards society- UBI, NSS

Future Bright Innovators- Summer Camp for School Students:

The institute organized a 3-day camp from 22nd to 24th May, 2019, called Future Bright Innovators (FBI) for 41 senior students of schools from Chennai, Tirupati, Nellore and Bangalore. The primary objective of the FBI programme is to provide a preview to Computer Science & Engineering and Electronics & Communication programmes, and encourage creativity and innovation among students. from various schools participated in the camp.

FBI covered short lectures on emerging technologies by faculty, guest lectures by industry experts, demonstration of innovative projects by research scholars, tour of Sri City industrial estate and visits to MNCs, visit to Satish Dhawan Space Center (ISRO), interaction with start-ups of IITM Research Park and a 2-level quiz on AI & Machine learning. Students had a boat-ride to Irukkam island through Pulicat lake and took part in team-building and leadership development through games.



Kala Senthil of the Hindu Senior Secondary School, Chennai, said, “It was a wonderful experience. For the first time, class XI students were getting exposure to concepts such as robotics, cybersecurity and Internet of Things. It was about shaping students’ careers and exposure to teachers too.” She further admitted that as robotics was not part of the CBSE curriculum, the experience was new to them.

IIT director G. Kannabiran said the objective was to provide a preview to computer science and engineering, electronics and communication and encourage creativity and innovation.

Students could interact with people who had set up startups of the Indian Institute of Technology Madras Research Park. The workshop packed a quiz on artificial intelligence, machine learning and a boat ride on the Pulicat lake. A demonstration of prototypes such as mini radar, smart village wells, communication between vehicles in water, mobile

controlled robot cars, all created by research scholars of IIIT Sri City, was especially held for the students.

Dr. Kannabiran said in the next camp, students from 25 schools would be invited. “IIIT Sri City plans to conduct a leadership programme for principals of select schools and a training programme for senior science teachers,” he added.

Activities under Unnat Bharat Abhiyan, July-Dec 2019:

The flagship programme of the Ministry of Human Resource Development (MHRD), Govt. of India is implemented by the institute. IIIT Sri City has adopted five villages (Aroor, Mallavaripalem(East), Ramachandrapuram, Siddammaagraharam, and Tondur Society) and formed the cluster. As a part of this programme, the institute has already completed village-level surveys of all villages. Presently, the process of collecting data by door to door visits to analyze the socio-economic situation of the people of these villages.

To commemorate Mahatma Gandhi’s 150th birth anniversary on October 2nd, IIIT Sri City organized a major programme in villages adopted under Unnat Bharat Abhiyan, partnering with Sri City Foundation and SIMS Hospital. More than 150 National Social Service (NSS) volunteers of IIIT Sri City led the coordination of activities. *A medical Camp* was organized at the Village. About 170 people were organized and preliminary treatment was given to them. *Village Cleaning* was carried out with special focus on eradicating plastics. The main goal of the day is to assure the villagers not to use plastics. Firstly, volunteers abolished all the plastic in the village. Volunteers replaced the plastic bags and covers with the jute and cloth bags and achieved ‘Plastic Free Zone’. Moreover, villagers are being explained about the consequences of using plastic and its adverse effects. *Anti-Alcohol campaign*- NSS volunteers enacted Muktha Natak (drama) to highlight how families and youth are severely affected due to drinking habits. *Awareness on menstrual health*-Women and girl children were educated about the “Feminine Hygiene Products” which gives them a homely environment in their daily life. Volunteers distributed the safety kits to them and explained the importance of being concerned about their health. *Promoting Rural sports*- Volunteers Engaged with boys and girls of the village and conducted games for the children and distributed prizes to them.

1. Swachhata Rally and Village Cleaning organized on 12th August 2019 in one of the adopted Village Siddhama Agraharam , Sri City, Chittoor



2. Blood Donation Camp on 14th Aug. 2019



3. Documentary film of Mahatama Gandhi :-



4. IIIT Sri City Campus Cleaning campaign



5. Tree Plantation on 15th Aug. 2019



6. Road Safety awareness week 25th to 29th Sept. 2019



7. Poster making and Displaying to save environment 28th Sept. 2019



8. Plastic Free Campaign



9. Free Medical Camp on 2nd Oc. 2019 in the Village Tondure Society



10. Anti-Alcohol Camp on 2nd Oct. 2019



11. Village Sports



13. Summary of Financials

INCOME & EXPENDITURE STATEMENTS(YOY)

(Rs. in Lacs)

INCOME	2015-16	2016-17	2017-18	2018-19	2019-20
Academic Receipts	463.56	798.29	1213.42	1701.93	2233.14
Grants / Subsidies	195.00	100.00	300.00	-	-
Income From Investments	72.63	143.20	78.77	104.39	204.73
Interest Earned	-	-	36.18	0.40	2.75
Other Income	63.91	105.18	151.59	226.98	351.67
TOTAL(A)	795.10	1,146.67	1779.96	2033.70	2792.29
EXPENDITURE					
Staff Payments & Benefits (Establishment Expenses)	173.22	270.02	422.32	521.40	489.32
Academic Expenses	132.56	279.14	445.06	393.09	417.74
Administrative and General Expenses	271.44	297.82	540.53	395.14	355.75
Transportation Expenses	60.73	69.40	123.90	52.99	47.10
Repairs & Maintenance	27.77	53.05	75.04	60.48	87.76
Depreciation	50.63	79.75	100.93	270.97	270.74
Prior Period Expenses	-	5.56	39.63	3.68	48.34
TOTAL(B)	716.35	1,054.74	1747.41	1697.75	1716.75
Excess of Income over Expenditure(A-B)	78.75	91.93	32.55	335.95	1075.54

