

# INDIAN INSTITUTE OF INFORMATION TECHNOLOGY SRI CITY, CHITTOOR

(An Institute of National Importance under an Act of Parliament)

# Annual Report 2021-22



# **IIIT Sri City Chittoor**

# Annual Report 2021-22

(1<sup>st</sup> April, 2021 to 31<sup>st</sup> March, 2022)

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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 200 MNCs from 30 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 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 MoE 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. As of now, we have onboarded about 20 Startups in diverse areas. We are part of MoE 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 Vision and Mission

## 2.2.1. Vision

To be a self-sustaining, research-led education institution to contribute significantly to the global competitiveness of key sectors of Indian economy and industry

# 2.2.2 Mission

Nationally Relevant and Internationally Recognized Entrepreneurial Institution

- To provide manpower of global standards to the information technology and electronics industry
- To take up research leading to innovation and entrepreneurship and intrapreneurship
- Engage with local communities and provide technology-based solutions to the problems
- Focus on overall development of the students to make them global citizens

# 2.3 Governance

# 2.3.1 Board of Governors (BoG)



Shri M Balasubramaniam (Bala MS) Board Director & Digital Transformation Leader Chief Executive Officer, STRATINFINITY INC Chairman, IIIT Sri City, Chittoor w.e.f. 26<sup>th</sup> August, 2020

Shri Bala is a seasoned technology leader with a great track record of Building Organizational capability and creating value through technology enabled business transformation with proven Expertise & Leadership in devising and effectuating policies aimed at building and managing multinational Captive's - Global Capability Centers in Banking, Financial Services, Insurance, Software Development, Telecom, Higher Education functions and successfully managed multiple Merger & Acquisitions and Joint ventures globally in the field of technology centers of BFSI and Higher Education functions.

He is having two decades of experience in the IT industry and worked with multiple MNC including Citibank, Polaris, Dun & Bradstreet USA, TransUnion USA. Bala was a founder Director of Higher One India NYSE listed financial service company and Founder Managing Director of Blackboard Inc USA, a world's largest education technology company serving 120 million students covering 2000+ Universities across 90 countries in the world, Managing the R&D Center in India responsible for Product development using exponential technology. Bala has closely interacted with the Higher Education Students, Faculty members and Directors of Universities and Colleges globally, establishing the student's success by providing Software application for assessments of students and faculty members. He is a successful transformational leader in building technology and product engineering centers in India to the global organizations.

Shri Bala was instrumental in building the CIBIL (Indian Credit Bureau) and the Credit Bureau of Sri Lanka, Egypt, UAE- Dubai and Nigeria. He was instrumental in building the captive company's ecosystem (MNC companies) in the State of Tamil Nadu.

Presently Bala is Founder & CEO, STRATINFINITY, a global consulting firm head quartered in USA and having its offices in London UK, Chennai India. Bala is also a General Partner & Chief Digital Officer, PONTAQ UK. Bala is a Board Advisor to some of the IT/ITES/ Startup companies including Change Pond Technologies, Edsix Brain Lab, Thinkinfinity Inc, Ubiquity Inc. to name a few.

Apart from the professional accomplishments above, Bala was instrumental in the Technology Initiatives of Govt of Tamilnadu and building the Tech Captive Global company eco system in the State of Tamilnadu. Shri Bala played key role in various technology Initiatives of Tamil Nadu Police department. Bala works closely with Ministry of Education & MeitY, Government of India on multiple assignments on honorary and advisory roles including the following:

- Chairman of NASSCOM GCC council & Member of GCC National Council between 2017-2019.
- Bala served as Vice Chairman of NASSCOM GCC council for TN and Kerala between 2015-2017.
- Member CYCORD Ministry of Home, Govt of India.
- Member Board of Studies, Ramanujam Institute of Mathematics, University of Madras.
- Board Director, Center for Innovation and Entrepreneurship Development (CIEDI) by MeITY, Govt of India.
- Bala was a Senate member at Madurai Kamarajar University., appointed by His Excellency Governor of Tamilnadu.
- National Board of Advisor, MSME & Startup Forum Bharat.
- National Cyber Security and HR committee member of AMCHAM (2015-2020).
- Committee Member, HR, Education & Skills Development, CII TN Region (2016-2019)
- Part of NETF initial discussion forum held June 2021.

Apart from his Graduation and Post-Graduation in Management from Madras University, he has also an alumnus from IIM-Kolkata, PG in AI/ML from University of Texas and Executive Program in Global Mergers &. Acquisitions from Imperial College of London. His areas of interest include all cutting-edge technologies including Artificial Intelligence, Machine Learning, Block Chain and Data Analytics and pas-sionate towards building the Industry-Academia collaboration that paves way for Outcome Based Education

His areas of interest include AI/ML, Cyber Security, Digital Twin, Quantum computing, Data Governance, Digital Privacy, XaaS (Everything as a Service) & IoB (Internet of Behaviors).

Areas of Focus: Startup- Industry - Academia collaboration; New Captive Centers (R&D GCC's) in India, OBE across the Higher education in India, Upskilling & Reskilling among the students for industry readiness, India to be the world's digital society.

# Members:



Shri Rakesh Ranjan Additional Secretary (Technical Education) Department of Higher Education, MoE New Delhi

Shri Rakesh Ranjan 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- Defense, External Affairs, Culture, Higher Education and Pharmaceuticals.



Shri J.Syamala Rao, IAS Secretary to Government Higher Education Department Government of Andhra Pradesh

Shri J. Syamala Rao is the Secretary to Govt. of Andhra Pradesh, Higher Education Department/ Principal Secretary (HE), Govt. of Andhra Pradesh. He is an Indian Administrative Service officer of 1997 batch cadre.



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 Srini Raju, is an Indian Entrepreneur, and Private Equity Investor. Srini 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.

Srini 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.

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

Srini 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 SriniRaju Center for Networked Economy (SRITNE); Co-Sponsor (Donor) and Board Member of KREA University; and Founding-Member & Board Member of T-Hub, Hyderabad.



# 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.



Shri. Srinivas Peddada Senior Advisor General Atlantic, Hyderabad

Shri Srinivas Peddada is a Senior Advisor at General Atlantic, drawing on more than 25 years of experience in IT applications and infrastructure to provide strategic support and advice to the firm's investment teams and portfolio companies in the Technology sector in India & Southeast Asia. Before joining General Atlantic in 2020, Srinivas was holding the following positions.

- Chief Information Officer-Bharat Financial Inclusion Ltd 2012 –2020:
- Chief Information Officer-D&B South Asia, Middle East & North Africa Group 2007 2012
- Chief Technology Officer, AIG (2006 2007)
- Chief Technology Officer, GE Finance India Region and GE global support team (2005-2006)-Managing Technology Strategy and Operations
- Chief Architect, IBM: 1995 2005
- Senior Systems Analyst, TCS (1992-1995)



Ms. Shalini Kapoor IBM Fellow Chief Technology Officer (IBM AI Applications) Bengaluru

Ms Shalini Kapoor drives research, strategy, and development to maximize the infusion of AI. She is leading IBM's AI market-leading capabilities, driving consistent, re-usable implementation patterns, business transformation and value, and making AI accessible and useable to business users, and not just data scientists. She leads innovative and engaging programs to enhance AI skills and adoption within Cognitive Applications and across the India Software Labs. She is an innovator and technology Strategist with 23 years of work experience. Her expertise lies in developing product strategy to drive business imperatives, leading software product development and building high performing global teams. She is a powerful blend of technology vision and business acumen with proven architectural skills in complex solution development across industries. She is widely known for incubating and innovating next-gen solutions based on clients' requirements.



Shri. Bhuvan Anandakrishnan Director & Centre Head Caterpillar Technology Centre-India, Chennai

Shri Bhuvan Anandakrishnan is the Director of Electrical, Electronics & Software Technology, within Caterpillar India. Bhuvan acquired his bachelor's degree in Electronic Engineering from Madras University and a Master's degree in Business Administration from Great Lakes Institute of Management. He also has a Management Diploma from Bradley University, USA. Bhuvan has 21+ years of Industry experience of in the areas of Embedded Firmware Development, Machine & Engine Control Systems, HMI, Telematics, Autonomy & Automation, Cloud Technologies, Edge Computing & Advanced Analytics. He has Served in a variety of engineering, strategy development and leadership positions within Caterpillar Inc and has been a Key member in establishing its Electronics & Software Development Competency in India. He is also Providing Industry leadership as Chairman for NASSCOM GCC council in TN and Kerala region.



Prof. P. J. Narayanan Director International Institute of Information Technology, Hyderabad

Prof. P J Narayanan is the Director of IIIT, Hyderabad and a researcher in the areas of 3D vision, computational cameras, and parallel computing. He built the Virtualized Reality system in mid 1990s at the Carnegie Mellon University to capture 3D geometry and appearance of dynamic events. He also was an early adopter of GPUs for several Computer Vision and general computing tasks. He got his Bachelors (1984) from IIT Kharagpur, Masters and PhD (1992) from the University of Maryland, all in Computer Science. He was a research faculty member at

the Robotics Institute of CMU from 1992 to 1996 and headed the Vision and Virtual Reality groups of the Centre for Artificial Intelligence and Robotics, Bangalore from 1996 to 2000. He has been with IIIT Hyderabad from 2000 and has been its PG Coordinator, Dean of Research, and, from 2013, the Director. He was the President of ACM India from 2009 to 2014 and has involved with various activities of ACM such as Awards, Technology Policy, etc.



Prof. Partha P. Chakrabarti Professor of CSE & Former Director Indian Institute of Technology Kharagpur Kharagpur

Prof. Partha Pratim Chakrabarti completed his B.Tech in 1985 and PhD in 1988 from the Dept of Computer Science & Engg, Indian Institute of Technology (IIT) Kharagpur. He joined the same department as a faculty member in 1988 and is currently a senior Professor. From July 2013 he was the Director of the IIT Kharagpur till June 30, 2019. He was the Professor-in-Charge of the state-of-the-art VLSI Design Laboratory which he helped set up and has been the Dean of Sponsored Research and Industrial Consultancy at IIT Kharagpur and Head of the Advanced Technology Development Centre. He was also the co-Director of the strategic General Motors-IIT Kharagpur Collaborative Research Laboratory on Electronics, Controls and Software. He held additional charge as Director IIT Patna and IIIT Kalyani. He has worked closely with Industry and Government and has successfully completed projects totaling worth more than several hundred crores with MoE, DST, CSIR NMITLI, MeiTy, DHI, INSA, Volkswagen Foundation, Intel, Synopsys, Google. National Semiconductors, General Motors to name a few. He is the architect and overall coordinator of National Initiatives like the National Digital Library of India (https://ndl.iitkgp.ac.in), Global Initiative for Academic networks or GIAN (www.gian.iitkgp.ac.in), SPARC (sparc.iitkgpac.in), IMPRINT, etc that are emerging as game changers in India's higher education scenario.



Prof. K.N. Satyanarayana Director Indian Institute of Technology Tirupati, Andhra Pradesh

Prof. Kalidindi N. Satyanarayana is currently the Director of IIT Tirupati, Andhra Pradesh. He has been a Professor in the Building Technology & Construction Management Division of the Department of Civil Engineering at the Indian Institute of Technology Madras, Chennai, India. He received his B. Tech degree in Civil Engineering from IIT Madras. He then received MS and PhD degrees with specialization in Construction Engineering and Management from Clemson University, USA. He has been a faculty member at IIT Madras since 1991. In 2009 he was a Visiting Professor at lowa State University, USA. At IIT Madras he served as Advisor - Alumni Affairs (2004-2009) and Chairman - Engineering Unit (2010-2013). He is currently Chairman of the Implementation Committee for IIT Madras Research Park - Phase II (one million sq. ft. facility). He has served on the committees for setting up new campuses including IIM Trichy, IIT Indore and IIT Jodhpur. He is Chairman of the Academic Advisory Group, Project

Management Institute (PMI); Vice Chairman, Board of Advisors of The Glass Academy; Expert Member on the Board of Management of Building Materials & Promotion Council (BMTPC), and serves as Independent Director on five company boards.



# Prof. G. Kannabiran Director, IIIT Sri City Chittoor

Prof. 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.

# **Prof.G.Kannabiran**

Director & Registrar Incharge (Additional charge as Registrar Incharge from 27th August, 2019 onwards)

Chairman	Shri M. Balasubramaniam Chairman, IIIT Sri City Chittoor w.e.f. 26 <sup>th</sup> August, 2020
Members	Shri Anil Kumar, Director (Finance), IFD Section Department of Higher Education (TS-1) Ministry of Education
	Sri J Syamala Rao, IAS Secretary to Government, Higher Education Department, Government of Andhra Pradesh
	Shri Srinivasa C. Raju Chairman Sricity Foundation
	Prof. G. Kannabiran Director IIIT Sri City Chittoor

# 2.3.2 Finance Committee

# 2.3.3. Building and Works Committee

Chairman	Prof. G. Kannabiran Director IIIT Sri City, Chittoor	
Members	Prof. P. Krishna Associate Professor & HoD Dept. of Civil Engineering, IIT Tirupati	-Nominee of the MoE, GoI
	Shri. Y. Venkatapathi Rao Joint Secretary to the GoAP Department of Higher Education	-GoAP Representative – Member
	Shri Srinivas Tallapragada Independent Projects & Facilities C (Nominee of Industry Partner)	-Industry Partner Nominee Consultant
	Prof. A. Mehar Prasad Professor Structural Engineering Division, II	-Board Nominee T Madras

	Mr. U. Sarath Chandra Kanth -Board Nominee Founder and Principal Architect DesignTech Chennai		
]	Dr. Hrishikesh Venkataraman Associate Professor & Associate		
]	Registrar Incharge Secretary IIIT Sri City, Chittoor		
2.3.4 Senate			
Chairperson Ex-Officio	<b>Prof. G. Kannabiran</b> Director, IIIT Sri City Chittoor		
<b>Three persons from amongst</b> Educationists of repute And not employees of the Institu	Prof. C. V Jawahar- Special Invitee Professor & Dean (R&D) te IIIT Hyderabad		
	<b>Prof. Debdeep Mukhopadhyay – Member</b> Professor, Dept. of CSE IIT Kharagpur		
	<b>Prof Balaraman Ravindran - Member</b> Professor IIT Madras		
Three persons who are not Members of teaching staff Specialized knowledge	<b>Dr. Chandramouliswaran V - Member</b> VP Risk Management India Paypal Chennai.		
	<b>Dr. Partibha Moogi - Member</b> STSM, IBM, Bangalore		
	<b>Dr. Parthasarathy Ramaswamy - Member</b> Senior Principal Engineer Intel Bangalore		
Ex-Officio Secretary	Prof. G. Kannabiran - Secretary Registrar Incharge IIIT Sri City , Chittoor		

# 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). IIIT 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 about 180 companies from 30 countries. The institute has access to the industries and social infrastructure available in Sri City through the Industry Partner.





# 2.5 Infrastructure

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

# Academic Block







# Classrooms





Class Room with 60 seating Capacity



Class Room with 120 seating Capacity

# Additional faculty cabins



# Library

Major events in the academic year 2021-22, 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 3012 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 2021-22

S.No.	Department	No. of books	Cost Rs.
1	ECE	8	12,015
2	Mathematics	2	1,234
3	CSE	14	49,592
4	General	1	3,313

# 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.

# 328 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.

4 students admitted into the 4 year B.Tech programme in CSE through DASA.

#### 1 student admitted into the 4 year B.Tech programme in CSE through Study in India.

For more details about DASA visit www.dasanit.org

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

# **3.2 PG Admissions Policy:**

Recognizing the growing importance of Artificial Intelligence & Machine Learning and Cyber Security, the institute senate comprising of leading visionaries in the field of Information Technology namely Prof. C.V. Jawahar, Professor, IIT Hyderabad; Prof. Devendra Jalihal, Professor, IIT Madras, Prof. M. Balakrishnan, Professor, IIT Delhi, Prof. S. Sudarshan, Professor, IIT Bombay, Dr. Gargi B Dasgupta, Director, IBM, Mr. Kannan Babu Ramia, Principal Engineer, Intel, and Mr Srikumar Sreedharan, Product Head, TCS have structured and approved industry-tailored two year M.Tech programmes with emphasis on outcome-oriented curriculum. At present, IIIT Sri City offers two specialized Postgraduate Programs

- M. Tech in Artificial Intelligence & Machine Learning
- M. Tech in Cyber Security

Institute offers admission to GATE qualified candidates through CCMT and non-GATE candidates through institute level selection process. For each programme, fifteen seats are available through CCMT and fifteen seats through the institute selection process. Institute adheres to the reservation policy as per GOI rules.

# Admission through CCMT for GATE Qualified Candidates:

GATE candidates with B.Tech./B.E. in CSE/ECE/equivalent branches are eligible to apply for admission through Centralized Counselling for MTech (CCMT) 2022 portal. In the GATE category, candidates should have a valid GATE score and candidates have to follow the procedures of CCMT for the admission. The eligibility criteria for the GATE candidates will be governed by the CCMT rules. Further details on the admission process is available at: <u>https://ccmt.admissions.nic.in/</u>

## Admission through Institute Level Selection process for Non-GATE candidates:

Non-GATE candidates with B.Tech./B.E. in CSE/ECE/equivalent branches are eligible to apply for admission through the institute admission process. In the qualifying degree, the candidates should have passed and secured at least 6.5 CGPA (on a 10-point scale) or 60% for GEN/GEN-EWS/OBC, whereas 6.0 CGPA (on a 10-point scale) or 55% in case of SC/ST/PwD candidates.

Non-GATE candidates with an undergraduate degree from CFTI institutes will be screened on the basis of their previous academic records and must have at least 8.0 CGPA. The screened candidates have to appear for a Coding Test and an Interview at IIIT Sri City. Non-GATE General candidates (Non-CFTI or CFTI with < 8.0 CGPA) will be screened on the basis of their previous academic records. The screened candidates have to appear for a written exam at IIIT Sri City. The syllabus of the test is similar to GATE. The outcome of the test will be used to do the second screening. Those who pass the second screening have to appear for a Coding Test and an Interview at IIIT Sri City. Candidates with work experience will be given additional weightage in the selection process.

The detailed eligibility criteria and information regarding the institute selection process is available at: <u>https://www.iiits.ac.in/admissions/m-tech-programme/</u>

# **3.3 PhD Admission Policy:**

Doctoral Programme leading to Ph.D. is offered in the following branches of the Institute:

- i) Computer Science and Engineering
- ii) Electronics and Communication Engineering

In IIITS there is a provision for 2 categories of registration to the candidates willing to register for PhD Scholars who are willing to pursue Research Studies on a full-time basis can choose **full-time PhD** and working professionals from Govt. R&D Organizations / IT Professionals can choose a **part-time PhD**. Admissions into PhD programs are done twice in a year, during Monsoon and Spring.

# **Full-time PhD in CSE / ECE**

Candidates with a good academic record with M.E. / M.Tech. / M.S. or equivalent degree in any branch of Engineering/ Technology (OR) Exceptional candidates with Master's in Statistics / Mathematics / Master of Computer Applications / Electronic Sciences / Computer Science / Information Technology (or an associated area with strong background in mathematics and programming), or any other related subjects (OR) Exceptional candidates having B.E. / B.Tech or equivalent degree with a CGPA of 9.0 or above and demonstrated research capability by means of research papers, IPs and similar research outcomes may also be considered.

## Part-time PhD in CSE / ECE

Working IT Professionals with rich technical background from IT industry/MNCs with employment and residence based in India or Scientists working in Govt. of India Research labs such as DRDO, ISRO etc are eligible to apply. Additionally, the candidates should also fulfill any one of the following criteria: At least a First class Master degree in the applicable areas or Exceptional candidates having B.E. / B.Tech. in applicable areas. In both cases, the candidate having Master degree should have at least 2 years documented industrial experience in reputed MNCs OR Bachelors degree having 5 years documented industrial experience in reputed MNCs.

## **Admission Process**

- Satisfying the minimum eligibility criteria
- Candidates recommended by the PhD Admissions Committee will be called to appear for a written test.
- The candidates shortlisted based on the written test performance need to appear for a personal interview before the Ph.D. Admissions Interview panel.

Selection in Ph.D. programmes will be based on merit. The merit list for all the candidates in each category (Institute scholarships, industry personnel) is based on the cumulative score in the written test, interview, marks in UG / PG, experience, and publications. Considering the background experience, greater weightage may be given for the interview and other components (such as academic qualifications, research publications / patents, work experience, etc.)

10 students were admitted into the PhD programme in Monsoon 2021 and Spring 2022. The total number of students during this period was 34.

# 4. Academic Programs

# 4.1 Undergraduate

### Undergraduate Curriculum

IIIT Sri City, Chittoor was mentored by IIIT Hyderabad in the first 6 years. The curriculum at IIIT Sri City follows a practice-theory-practice 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 practices 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 2<sup>nd</sup> year. Notably, the curriculum offers the flexibility of Honors 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, Data Science 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 specialized 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 specialized program is to produce graduates by providing rigorous training in the priority areas of Artificial Intelligence. The B.Tech. with a specialization 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 specialization 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 specialization 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 Learningb) Reinforcement Learningc) Industry Applications of AI & MLd) 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 specialization 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 this 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 Cyber security 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 Cyber security:

- a) Introduction to Cyber security
- 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 faculties for a period of 4 semesters. They earn their Honours degrees by producing research publications or Intellectual property or a software/ hardware product.

### 4.2 Post Graduate

IIIT Sri City offers two-year specialized MTech degree programmes in: i) Artificial Intelligence & Machine Learning (AI & ML), and ii) Cyber Security (CS).

## 4.2.1 MTech in AI & ML

Recognizing the growing importance of Artificial Intelligence & Machine Learning, the institute senate comprising of leading visionaries in the field of Information Technology namely Prof. C.V. Jawahar, Professor, IIT Hyderabad; Prof. Devendra Jalihal, Professor, IIT Madras, Prof. M. Balakrishnan, Professor, IIT Delhi, Prof. S. Sudarshan, Professor, IIT Bombay, Dr. Gargi B Dasgupta, Director, IBM, Mr. Kannan Babu Ramia, Principal Engineer, Intel, and Mr Srikumar Sreedharan, Product Head, TCS have structured and approved an industry-tailored two year M.Tech programme in Artificial Intelligence & Machine Learning, with emphasis on outcome-oriented curriculum.

The first semester of the programme offers foundational courses such as Machine Learning, Artificial Intelligence and Knowledge Representation, Advanced Data Structures and Algorithms, Mathematical Foundations, and AI & Ethics. The students will be individually mentored by faculties from the first semester onwards and will be encouraged to take up either industrial internships or to work on sponsored research projects with the institute faculties. The second semester of the programme offers two core courses of Deep Learning and Data Analytics & Visualization. Additionally, many electives are also being offered to facilitate deep understanding and research in the allied areas of AI & ML such as Computer Vision, Natural Language Processing, Information Retrieval, Data Mining, Robotics, Probabilistic Graphical Models, Big Data Analytics, Reinforcement Learning, and Advanced Optimization. The students are encouraged to take up year-long industrial projects during the last two semesters of the programme facilitating industry connect and effective orientation to industry practices.

#### MTech AI & ML Curriculum

The curriculum of the MTech Programme covers a total of 64 credits, 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 industry – based project work requires the completion of 24 credits that lead to MTech Dissertation.

#### Semester 1

- 1. Artificial Intelligence and Knowledge Representation
- 2. Machine Learning
- 3. Advanced Data Structures and Algorithms
- 4. Mathematical Foundations
- 5. AI and Ethics (Seminar Course)

#### **Electives:**

- 6. Computer Vision
- 7. Natural Language Processing
- 8. Information Retrieval
- 9. Data Mining
- 10. Robotics
- 11. Probabilistic Graphical Models
- 12. Big Data Analytics
- 13. Reinforcement Learning
- 14. Advanced Optimization

#### MTech AI & ML's Senate & Programme Advisory Group

The Senate of IIIT Sri City has senior academicians from institutes like IIIT Hyderabad, IIT Madras, IIT

Programme Advisory Group (PAG) helps the institute formulate the curriculum and support effective delivery of the programme. The PAG of MTech AI & ML consists of the following experts:

- 1. Prof. Balaraman Ravindran Professor & Head, The Robert Bosch Centre for Data Science and AI, IITM
- 2. Dr. Manish Gupta Director Google Research

- Semester 2 1. Deep Learning
  - 2. Data Analytics and Visualization
  - 3. Elective-1
  - 4. Elective-2
  - 5. Elective-3

Bombay, IIT Delhi etc. and industry experts from leading organizations such IBM, Intel, TCS etc. For Senate details visit http://www.iiits.ac.in/home/governance/senate/

- 3. Ms. Shalini Kapoor IBM Fellow & CTO for AI **IBM** Research
- 4. Dr. Venkatesh Sarangan **Principal Scientist** Tata Consultancy Services

#### **4.2.2 MTech in Cyber Security**

The recent advancement of information sharing over the Internet increases cyber threats to the organizations. It requires security related sophisticated knowledge and tools to keep the systems secure from external threats. Around the world as well as in India, there is a high demand for skilled cyber security professionals who are well educated about the various aspects of cyber security. Taking motivation from this, IIIT Sri City offers a two-year M.Tech degree programme specialised in Cyber Security with emphasis on Outcome Based Education (OBE). The programme advisory group constitutes cyber security experts working at reputed organizations/universities such as Ernst & Young, IBM, KPMG, TCS, City University of London, and Data Security Council of India (DSCI). The advisory group ensures timely revision of the curriculum to ensure industry relevance and graduate employability.

Being an Institute of National Importance in Information Technology, IIIT Sri City is already running the B.Tech. program with Cyber Security specialization. Thus, the M.Tech.in Cyber Security program will boost the IIITS ecosystem further and will produce highly skilled manpower to the industry.

#### **MTech Cyber Security Curriculum**

The curriculum of the MTech Programme covers a total of 64 credits, 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 industry –based project work requires the completion of 24 credits that lead to MTech Dissertation.

#### Semester 1

- 1. Introduction to Cyber Security
- 2. Algorithms and Complexity Analysis
- 3. Network and Data Security
- 4. Software Security
- 5. Cyber Security Regulations (Seminar Course)

#### **Electives:**

- 1. Threat Intelligence
- 2. Malware Analysis and Digital Forensics
- 3. Cyber Physical Systems Security
- 4. Software Defined Networking Security
- 5. Mobile and Wireless Security
- 6. Blockchain Technology

#### MTech Cyber Security Senate & Programme Advisory Group

The Senate of IIIT Sri City has senior academicians from institutes like IIIT Hyderabad, IIT Madras, IIT Bombay, IIT Delhi etc. and industry experts from leading organizations such IBM, Intel, TCS etc. For Senate details visit <u>http://www.iiits.ac.in/home/governance/senate/</u>

Programme Advisory Group (PAG) helps the institute formulate the curriculum and support effective delivery of the programme. The PAG of MTech Cyber Security consists of the following experts:

- Mr. V. Anand Kumar Director Managed Security Services, IBM
- Prof. Muttukrishnan Rajarajan Director Institute for Cyber Security, City University of London
- 3. Dr. Rajeev Mukundan CTO Cyber Security, TCS

#### Semester 2

- 1. Cryptography
- 2. Machine Learning Applications for Cyber Security
- 3. Elective 1
- 4. Elective 2
- 5. Elective 3

- Mr. Sastry Krishna Pendyala Partner, Ernst & Young, Hyderabad
- Mr. Akhilesh Tuteja Global Cyber Security Practice Co-leader, Partner KPMG
- 6. Mr. Vinayak Godse Vice President, Data Security Council of India (DSCI)

# 4.3 PhD

IIITS has significant focus on research demonstrated through sponsored projects and scholarly publications. 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. The institute 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

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.

## **PhD** Curriculum

**Duration of the programme:** The maximum period to complete the programme is 6 years for full-time candidates and 7 years for Part-time candidates. Scholarship will be given up to 4 years for full-time candidates or till the date of thesis submission whichever is earlier.

**Doctoral Committee:** Every DC committee includes the following composition of members - Chairman, Research Guide, Co-Guide (if any), Internal member (CSE), Internal member (ECE), Industry co-guide / Industry member, External member from Industry / Research establishment.

**Course work:** The research scholars should complete four relevant courses prescribed by the Doctoral committee.

**Industry Internship:** The PhD students under full-time category are encouraged to take up industry internships in top-tier MNCs and Research organizations for a duration of 4-6 months during the entire PhD programme.

#### **Programme highlights:**

- Industry-oriented PhD Programme
- Opportunity to do summer internship in industries
- Funded PhD programme for full-time students
- Flexible attendance scheme for part-time PhD students
- No campus stay requirement for completion of course for part-time students
- Inclusion of Industry expert in doctoral committee

# 4.4 Academic Performance

Semester	Subjects	No. of students enrolled	No. of students passed	Pass percentage
Monsoon 2021	<b>UG 1 Courses</b> Discrete Structures and Matrix Algebra	UG 1 - 337	327	97%
	Computer Programming			
	Overview of Computers Workshop			
	Essential English			
	Climate Change Implication			
	Foundations in Human Values and Ethics			
	Energy and Environment			
	UG 2 Courses	UG2 - 298	284	95.3%
	Object Oriented Programming			
	Mathematics-3			
	Advanced Data Structutes and Algorithms Database Management Systems			
	Computer Architecture			
	Circuits and Network Analysis			
	Control Systems			
	Professional Communication			
	UG3 Courses			
	Full Stack Developement2			
	Compiler Design	UG 3 - 260	240	92.3%
	Cloud Computing			
	Introduction to Cyber Security			
	Natural Language Processing			
	Information Retrieval			
	Agent Based Modeling and Simulation			
	Data Mining			
	Computer Graphics and Multimedia			
	Cryptography			
	Digital Image Processing			
	Introduction to Data Analytics			
	Wireless Networks			
	Deep Learning			
	Introduction to VLSI			
	Pattern Recognition			
	Wireless Communication			

Microproc	essors and Microcontrollers			
Electronic	Packaging			
IT Project	Management			
Innovation	and Entrepreneurship			
Energy and	Environment Science			
Bioinforma	tics			
Climate Ch	ange and Implication			
Foundation	of Human Values			
ICT for De	velopment			
UG4 Cour	ses	UG4 - 249	239	95.9%
Agent Base	ed Modeling and Simulation			
Introductio	n to Cyber Physical System			
Data Minir	ıg			
Natural La	nguage Processing			
Cryptograp	hy			
Digital Ima	age Processing			
Introductio	n to Data Analytics			
Wireless N	etworks			
Python for	Data Science			
Threat Inte	lligence			
Microwave	Engineering and Radar Systems			
Advanced	VLSI			
Wireless C	ommunication			
Digital Tw	ins Concepts and Applications			
IT Project	Management			
Innovation	and Entrepreneurship			
Energy and	Environment Science			
Bioinforma	tics			
Climate Ch	ange and Implication			
Foundation	of Human Values			
ICT for De	velopment			
Differentia	l Equations			

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

## 5.1 Summer Internships

Students at IIIT Sri City are highly encouraged to seek internships during summer irrespective of which year they are enrolled in the institute.

While it may sound quite aspirational that we are encouraging even the UG first year students to seek internships, we believe that an industry experience (from the first year) will go a long way in helping a student launch a bright career, from our institute. So, we encourage students as soon as they join to even get work-from-home internships. We feel that every single aspect of learning

should be implemented rigorously and executed with due diligence. Internships are one such milestone at the IIITS.

Of course, our focus is to get the pre-final year students to get summer internships, as there is a good chance that these internships can get converted to Pre-Placement Offers (PPO). The Placement Office take significant effort to get internships to students and does the following:

- Contact companies routinely to see internship opportunities for pre-final year students,
- Share various contests that are happening domestically in the country and internationally,
- Seek companies for projects so that students can complete the projects at home and add it to their resume, and
- Expose students to various international internships opportunities.
- Students are also encouraged to take academic internship opportunities both here in India and abroad. The placement office also brings such opportunities to students so that they can apply for many opportunities.

Microsoft, Amazon, Yahoo, Swiggy, ZS Associates, Bosch, Commvault are few of them where our students are currently indulged in their high-end lead projects.

# **5.2 Semester Long Project**

Semester-long projects is one of the flagship programs of our institute and we have brought in novel aspects into this program so that it benefits the students. There are at least two ways that students benefit from these projects:

- 1. Students who aspire for their dream jobs sign-up with companies for a Semester-long projects program with an opportunity to convert into a full-time position.
- 2. Often the companies visiting the campus for recruitment also offer students an opportunity to join as interns before the students join in the full-time positions in the same company. So, students have a gradual transition from student to their full-time roles.

The students get eight credits for these projects, and we have a rigorous review. The students who had opted for a Semester-long project only, will be evaluated twice by the industry mentor and twice by the institute faculty mentor. A team of two faculty members carry out the final evaluation, which includes the internal faculty mentor.

Following are some of the key numbers for the Semester-long projects in the year 2022:

Number of Students Doing SLP	146
Duration of Internship	4 to 6 months
Stipend for the Internship	Rs. 25000 to Rs. 1,20,000

#### **5.3 Campus Placement:**

The BTech placements have significantly improved over the previous years through a structured and systematic effort. The campus placement started in the first week of August 2020 and the companies that visited the campus for recruitment not only hired both the CSE and ECE students. The job roles that students get are very exciting to them in that it fosters their career growth. The highest domestic package that our students received in the academic year 2020-21 was Rs. 43 lakhs per annum. We have achieved 96% placement for the 2021 batch. Some students also get international job offers in top companies. IIITS attracts product-oriented companies mostly and the diversity of the companies that come for placements cater to the needs of the students. MNCs (Microsoft, Amazon, Reliance, American Express, BNY Mellon, etc.), service-oriented companies (but hiring for product role positions such as TCS, IBM, Virtusa, L&T, etc.) and established start-ups (SpringML, Flutura, Couture etc.) have recruited our students.

- The *number of companies* visiting the campus is more than required for the number of students eligible in a given year. So, it gives students a choice to sit in companies of their interest. Students also get exposure to various companies that are ready for recruitment in the market.
- The Cost to the Company (CTC) package that IIITS gets for campus placements is on par with any premium institute in the country. The job roles that students get are very interesting to them in that it fosters their career growth.
- The highest domestic package that an IIITS student receives in the academic year 2021-2022 is 85 lakhs per annum.
- Our students have been recruited in several deep-tech startups such as DarwinBox, Tekion, MerkleScience,Limechat etc..

#### **Student Readiness for Placements**

- The institute offers *specializations for undergraduate students* in areas such as AI & ML, Cyber Security, Cyber-Physical Systems, and with more specialization areas in the coming years. In addition, our students have expertise in other areas such as Software Development Engineering, Computer Vision, Data Analytics, IoT, Wireless Communication, Smart Transportation, and others.
- Before the companies visit the campus for placements, students polish their soft skills with courses such as *Aptitude and Reasoning, Advanced Communications Skills, and Competitive Programming*. It is worth mentioning that Communication Skills is being taught as a set of four courses in the first two years to bring students to the required levels in reading, writing, listening, and speaking.
- We also place an emphasis on developing graduates with specialized competencies and skills to take up *pivotal roles in Startups*. In addition to preparing the students for various job sectors, IIITS curriculum also caters to students who are inclined towards starting their own companies with courses such as Entrepreneurs and Startups and Small Business Management; students also understand the environment in startups (apart from learning how to build their own). Further, to support innovative startups from students, IIITS has launched the *Technology Business Incubator* with initial funding from the Ministry of Electronics and Information Technology (MeitY), named Gyan Circle Ventures.
- Importantly, our students have secured *semester-long industry internships and jobs* in *several MNCs* including Microsoft, Amazon, Cisco, American Express, Bank of New York, IBM, National Instruments, etc.
- Our student's other achievements include:
  - Won Microsoft AI challenge, Google Android Hackathon;
  - Runner ups at Smart India Hackathon;
  - Top 10 in Amdocs Hackathon; and
  - Selected (six students) in Google Summer of Code (GSoC).

#### **Institute Preparedness for Placements**

- IIITS also *engages with industry* for their research and the institute routinely brings faculty from the industry for teaching industry-oriented courses. The institute conducts many workshops in a given year partnering with industry professionals. These activities further strengthen the industry-institute relationship and the institute benefits in terms of placing the students in those companies that the institute is tied with.
- At IIITS, a structured and systematic effort for placements and training is present with a group of faculty members, staff, and students under the leadership of the Director. Placements is one of the *priority areas of the institute* and required resources in terms of manpower, etc. are sufficiently allocated. For example, there are placement chairs, training and placement officers, and student placements coordinators.

#### **Companies Visiting IIITS**

- 1. The Campus Placement started in the *first week of August 2021* and the companies that visited the campus for recruitment not only hired both the CSE and ECE batch students but the companies (listed in Table 2) were also from varied categories: multinational companies, successful startups, cutting-edge technologies computer science companies, and core ECE companies. Some of our multinational recruiters represented industries ranging across Consulting, E-Commerce, Hi-Tech, Hospitality, and Health Care.
- 2. IIITS attracts *product-oriented companies* mostly and the diversity of the companies that come for placements cater to the needs of the students. Big MNCs, Big service-oriented companies (but hiring for product role positions), established start-ups, promising startups in recent years, core companies (for ECE branches), etc., are the categories of the companies that visited IIITS in recent years.

# 6. Students Development Activities (SDC):

#### 6.1 Social Activities:

#### a) Unnat Bharath Abhiyan (UBA) "Health and Hygiene Campaign"

A health and hygiene awareness programme was conducted for students of Aroor Village (an adopted village under the UBA scheme of IIITS). The children were sensitized about the importance of washing their hands before and after eating and exercising daily and the importance of playing sports and inculcating other healthy habits to avoid falling sick. A special video screening on a balanced diet, cleanliness and maintaining oral and personal hygiene was also conducted. The children were asked to share their daily routines and the steps they took every day to maintain hygiene. The children learnt a lot from the session and promised to follow all the good habits.



A personal hygiene kit consisting of Toothpaste, Toothbrush, Hand wash, comb, nail cutter etc. was distributed to all the students and parents of the village.



## 6.1. b) Women's Day Celebration (UBA and NSS):-

Women's Day Celebrations 2022 was celebrated from 6-8 March, 22 on hybrid mode. The theme of the event was "Women: Achieving an Equal Future". On the first day the primary and secondary school students from villages adopted under UBA were on the campus. We had organized a drawing and poem competition for Primary students and Painting and Quiz Competitions for Secondary students. The event was followed by the motivational talk by the invited guest Mrs. A. Latha, DGM, SDSC, Sriharikota. The second day of the event was based on technical talks from eminent women speakers including Dr Shivani Gupta, Data Scientist, Reliance Jio and Ms Shilpa Rao, Head AI Products TCS and Ms Lekshmi Nair, Managing Principal, APAC Synopsys on AI, Data Science and Cyber Security. Ms Sucharita Kamath, Manager, ASPEN Networks talked on entrepreneurship and Prof Shyama Ramani, Professorial Fellow, United Nations University spoke about social services opportunities. On 8th March Ms Malyaj Varmani,



VP, Invest India shared her insights on the growing Indian economy and Ms Anu Acharya, CEO, Mapmygenome highlighted on the abundance of job prospects available in the field of biotechnology for women these days

International Women's Day on 8 March is a day to celebrate the social, economic, and political achievements of women, reflect on progress, and demand gender equality. For over a hundred years, International Women's Day has put the spotlight on issues affecting women all over the world. Today, International Women's Day belongs to everyone who believes that women's rights are human rights. On the occasion of Women's Day IIIT Sri City UBA and NSS, the cell has organised various activities for the girl students of the adopted village. About 50 girls students

from adopted villages participated in the event and unearth their talent in the activities. The activities are:-

- 1) Drawing and Poem Competition for Primary School Students
- 2) Painting and Quiz on women's day for Secondary School Students.

All the winners and participants are presented with prizes and lunch during the event.



## 6.1.c) 400th Prakash Parb Samaroh (EBSB)

Guru Tegh Bahadur was the ninth of ten Sikh gurus, who was born in Amritsar, Punjab, in April

1621. His birth anniversary is also known as Guru Tegh Bahadur Jayanti and Prakash Parv. This year marks the 400th Prakash Parv. As per the directive received from the Ministry of Higher Education, EBSB Cell regarding the celebration of the 400th Prakash Parv Samaroh of Shri Guru Tej Bahadur Ji, the following activities have been conducted by the EBSB club of IIIT Sri City:-

- 1) Essay Competition on the life history of Shri Guru Tej Bahadur Ji for all the students.
- 2) The Biographies of Shri Guru Tegh Bahadur Ji written by renowned academicians are shared with the students through a web link.



#### 6.1.d) Matribhasha Diwas (NSS and EBSB):

Language is much more than a means of communication. Language, particularly our mother tongue, is an essential component of our culture. Every year on February 21st, UNESCO observes International Mother Language Day to promote and spread mother languages and a greater awareness of linguistic and cultural traditions around the world, as well as to encourage solidarity based on understanding, tolerance, and discussion. The MoE is commemorating it as Matribhasha Diwas throughout India with the goal of sensitizing people to the need for greater use of mother tongues and other Indian languages for the nation's development and progress, imparting communicative skills and proficiency in the mother tongue, particularly among English medium students, giving a boost to "Knowledge Creation" in mother tongues, encouraging translation from other languages. IIIT Sri City NSS Cell and EBSB Club have organised the celebration of the language festival in the IIIT Sri City Campus with the following Events:

- 1. Essay Writing: About the languages in India
- 2. Elocution: Students will speak about their regional language
- 3. Singing in a regional language

On the day of Matribhasha Diwas students from 10 different states of India has spoken about their regional language. Prof. G Kannabiran Director, IIIT Sri City attended the event and appreciated all the participants for participating in the event.





#### 6.1.d) Swachatha Hi Seva Campaign (2021-22)

The Prime Minister has called for an unprecedented campaign called "Swachhta Hi Seva" from the 14<sup>th</sup> of September to the 2<sup>nd</sup> of October 2018 to celebrate the anniversary of the flagship programme "Swachch Bharat Mission". The "Swachhta Hi Seva" campaign aims at fulfilling Mahatma Gandhi's dream of a clean India by mobilizing the masses and reinforcing "Jan Andolan" for sanitation. From the year 2019 onwards IIIT Sri City Chittoor NSS Cell organised the "Swachatha Hi Seva Campaign" every year on IIITS Campus and adopted villages of the Institute. During the current year, the campaign has been conducted on the IIITS Campus. Nearly 200 NSS Volunteers have taken part in the campaign and cleaned the campus by picking up plastic waste. The Volunteers have placed Dustbins in the pathways as a preservative method to keep the campus clean. Pledge-taking ceremonies, quizzes, painting, and poster competitions were also conducted by the NSS IIIT Sri City.





#### 6.2 Physical Education and Sports Activities

### 6.2. a) International Day of Yoga (2021-22):

The International Day of Yoga was observed from 14th June to 21st June 2021 by IIIT Sri City Chittoor to put forward harmony and peace, which is the essence of yoga. "Yoga is the gateway of happiness that the body needs in daily life."

IIIT Sri City, Chittoor has been gratified in organizing the events through the online platform as yoga remains a "Ray of Hope" during covid 19 pandemic as a source of inner strength. The theme of this year's IDY "Yoga for Well-" with the message of "Be with Yoga, Be at Home" has created awareness with the following activities.

- 1) Faculty/Staff/Students were encouraged to practice yoga at home and which was performed on 21st June 2021 morning 07:00 am to 07:45 am.
- 2) Logo designing competition
- 3) E-poster making on IDY Theme
- 4) Essay writing on "Yoga and Covid 19"
- 5) Online Yoga Training session
- 6) Online Yoga awareness quiz

With the theme for this year, International Day of Yoga, IIIT Sri City Faculties, Staff, and Students have wholeheartedly participated with their family members and shared their pictures and videos. The highlights of the videos were Meditation, Triconasana salabhasana and faculty children participation.

The Common Yoga Protocol links have been shared with all the Faculties, Staff, and Students which were shared by the ministry for guidelines.





### 6.2. b) Fit India Campaign (2021-22)

Fit India Movement is a nationwide movement in India to encourage people to remain healthy and fit by including physical activities and sports in their daily lives. Fit India Movement was launched by the Prime minister of India Shri. Narendra Modi at Indira Gandhi Stadium in New Delhi on 29 August 2019. IIIT Sri City Chittoor to promote Health and fitness through sports and to calculate holistic development among students has organised the "Fit India Campaign" in the IIITS Campus. During the campaign following games were conducted:-

- 1) Basketball
- 2) Volleyball
- 3) Football
- 4) Cricket
- 5) Throw ball
- 6) Chess

A total of 200 IIITS students have participated in the Fit India campaign. The medals and trophies were presented to all the winners and runners by Prof. G Kannabiran, Director, IIIT Sri City Chittoor.





## 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 IIITs. 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.

IIIT 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 "Favorite 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 Formative

Assessment, 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 are fully prepared to take up advanced courses without dropping for a year.

## 7. People/ Human Resources

# 7.1 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	Prof. G.Kannabiran	Director	CSE
2	Dr Rajendra Prasath	Associate Professor	CSE
3	Dr Viswanath Pulabaigari	Associate Professor	CSE
4	Dr Balaji Raman	Associate Professor	CSE
5	Dr Shiv Ram Dubey	Assistant Professor (Grade I)	CSE
6	Dr Odelu Vanga	Assistant Professor (Grade I)	CSE
7	Dr Mrinmoy Ghorai	Assistant Professor (Grade II)	CSE
8	Dr Neha Agrawal	Assistant Professor (Grade II)	CSE
9	Dr. Piyush Joshi	Assistant Professor (Grade II)	CSE
10	Dr. P.V.Arun	Assistant Professor (Grade II)	CSE
11	Dr Nikhil Tripathi	Assistant Professor (Grade II)	CSE
12	Dr Arijit Roy	Assistant Professor (Grade II)	CSE
13	Dr Himangshu Sarma	Assistant Professor (Grade II)	CSE
14	Dr.Balasubramanian Kandaswamy	Assistant Professor	CSE
15	Dr Sreeja SR	Assistant Professor	CSE
16	Dr Annushree Bablani	Assistant Professor	CSE
17	Dr Bheemappa Halavar	Assistant Professor	CSE
18	Dr Shhathanaa	Assistant Professor	CSE
19	Dr Amit Praseed	Assistant Professor	CSE
20	Dr Rakesh Kumar Sanodiya	Assistant Professor	CSE
21	Dr.B.Krishna Priya	Assistant Professor	CSE
22	Dr Priyambada Subudhi	Assistant Professor	CSE
23	Dr.S.Manipriya	Assistant Professor	CSE
24	Dr Chandra Mohan D	Assistant Professor	CSE
25	Dr Pavan Kumar B.N.	Assistant Professor	CSE
26	Dr Kamalakanta Sethi	Assistant Professor	CSE
27	Dr Kandimalla Divyabramham	Assistant Professor (Grade I)	ECE

28	Dr Raja Vara Prasad Yerra	Assistant Professor (Grade I)	ECE
29	Dr Achintaya Kumar Sarkar	Assistant Professor (Grade I)	ECE
30	Dr Priyanka Dwivedi	Assistant Professor (Grade I)	ECE
31	Dr Anish Chand Turlapaty	Associate Professor	ECE
32	Dr K.Siva Prasad	Associate Professor	ECE
33	Dr Padmini Singh	Assistant Professor	ECE
34	Dr E.Paul Braineard	Assistant Professor	ECE
35	Dr.Mainak Thakur	Assistant Professor	Mathematics
36	Ms Prasanna Lakshmi M	Lecturer	Mathematics
37	Dr Aneel Yagabathina	Junior Lecturer	English

# 7.2 Visiting Faculty

SNo.	Name of the faculty	Course Name
1	IT Project Management	Mr. Sivasubramanian T
2	Personal Growth Lab	Dr. Jose MF
	Professional Communication, Essential	Dr. Karthika V
3	English and Advanced Communication	Dr.V.S.Ramakrishnan
	Skills	Dr. Shrimathy Venkatalakshmi
	ICT for Dovelonment	Dr. Pankaj Kumar
4		Dr. Rajesh Sharma
5	Climate Change and Implication	Dr. Raji P
6	Skills for Employability	Dr. Ravi Thilagan
7	Energy and Environment Science	Dr. Ruben Sudhakar
8	Bioinformatics	Dr. Sailatha Ravi
9	Quantum Information and Computing	Dr. SivaKumar
10	Operational Communication	Dr. Vanitha
11	Python for Data Science	Mr. Atul Tripathi
12	Threat Intelligence	Mr. Avkash Kathiriya
12		Mr. Chinmaya Mishra
13	Energy and Environment Science	Mr. P.Dhamalingam
14	IT Project Management	Mr. Jaydip Das
15	Macro Economics and Personal Finance	Mr. K M Padmanabhan
16	Innovation and Entrepreneurship	Mr. Satish Medapati
17	Aptitude and Reasoning	Ms. Shabana Imran Khan
18	Foundation of Human Values	Art of Living

# 7.3 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.Poorna Chandra	Junior Project Engineer		
8	Vijay Kumar S	Engineer, CSE Lab		
9	Koteswararao B	Engineer, CSE Lab		
10	A Korian	Engineer, EC Lab		
11	A.Suneetha	Administrative Assistant		
12	M.Suresh Reddy	Tutor for EC Lab		
13	M Sukirthi Vyas	Assistant-Academics		
14	G.Muralikrishnan	Library Assistant		
15	M. Tiripalu	Assistant (Accounts)		
16	D.Sunil	Assistant (F&A)		
17	P Naresh	Senior Intern		
18	I Ravi Teja	Senior Intern		
19	G.Prasuna Oduru	Resident Warden (Girls Hostel)		
20	G.Venkaiah	Attender		
21	D.Bhaskar	Supervisor-Housekeeping (Operations and Maintenance)		
22	B.Suresh	Office Assistant		
23	M.Karthik	Intern		
24	Supriya Raj	Intern		
25	T.G.Kirubakaran	Intern		
26	N.Mahesh Babu	Intern		
27	T.Suganya	Helper		
28	P.Narendra	Technician		
29	K.Giri	Electrician		
30	K.Muniratnamma	Care taker - Girls Hostel		
31	K.Kanakeswara Rao	Plumber		
32	S.Kishore	Electrician		

7.4 Consultants

SNo.	Name	Designation	
1	D Hari Krishnam Paju	Consultant (Procurement &	
	D.Hall Klishilani Kaju	Transportation	
2	Abhinay Irala	Senior Training and Placement Officer	
3	M Michayelu	Training and Placement Officer	
4	Mr P.Krishna Moorthy	Manager (TBI)	

#### 8. Research and Development

#### **Research & Development:**

During the period of April 2021 to March 2022, the faculties, along with the PG & UG students and their collaborators have published an impressive number of 16 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 Modeling. Notably, the faculty members and the students have presented in 20 national and international conferences during this period. Further, 2 Indian patents have been filed during this period.

#### **8.1 Research Publications**

#### **Publication in Journals**

- 1. Agrawal, N., & Kumar, R. (2022). Security Perspective Analysis of Industrial Cyber Physical Systems (I-CPS): A Decade-wide Survey. ISA transactions.
- 2. Agrawal, N. (2021). Autonomic cloud computing based management and security solutions: State-of-the-art, challenges, and opportunities. Transactions on Emerging Telecommunications Technologies, 32(12), e4349.
- 3. Agrawal, N. (2021). Dynamic load balancing assisted optimized access control mechanism for edge-fog-cloud network in Internet of Things environment. Concurrency and Computation: Practice and Experience, 33(21), e6440."
- "Sirigireddy, P & Eladi, P. B. (2022). Design of novel piezoelectric energy harvester utilizing the force generated from human walking. Smart Materials and Structures, 31(3), 035019 <u>https://doi.org/10.1088/1361-665X/ac4e52</u>."
- "Kishor Kumar G, Raja Kumar R, Ram Chakka and Viswanath P (2021), ""A Multi-Pronged Accurate Approach to Optical Character Recognition, Using Nearest Neighborhood and Neural Network Based Principles"", Accepted on 30th July 2021 in Sādhanā(2021)46:189, Pages 1--15, Indian Academy of Sciences (Co-published by Springer), 2021. DOI: https://doi.org/10.1007/s12046-021-01703-3 (Impact Factor 1.426).
- V.C.Sekhar, P.Viswanath, P. Mukherjee, A.Gautam, ""COMPOSV: Compound Feature Extraction and Depthwise Separable Convolution Based Online Signature Verification"", Springer Journal of Neural Computing and Applications, (Accepted on 30 Jan 22), Pages 1-28, 2022. (Indexed by SCI with IF 5.606).
- 7. S H Shabbeer et al. ""An Information-rich Sampling Technique over Spatio-Temporal CNN for Classification of Human Actions in Videos"" (accepted on March 9, 2022) in Multimedia Tools and Applications (an SCI-indexed, Springer Journal with IF 2.757)."

- Praseed, A., & Thilagam, P. S. (2021). Fuzzy Request Set Modelling for Detecting Multiplexed Asymmetric DDoS Attacks on HTTP/2 servers. Expert Systems with Applications, 186, 115697
- 9. M. Sukeerthi and Siva Kotamraju, "Trap and carrier removal study of 4J InGaP/InGaAs-GaAsPMQW/InGaAsNSb/Ge high efficient space solar cell using advanced physical models" Physica E: Low Dimensional Systems and Nanostructures, Vol.134, 114914, 2021.
- 10. Pavan Vudumula and Siva Kotamraju, "The reverse recovery characteristics of an SiC superjunction MOSFET with a p-type Schottky diode embedded at the drain side for improved reliability", Journal of Computational Electronics, 20(3), 1187-1195, 2021"
- 11. "A cascaded convolutional neural network architecture for despeckling OCT images",Biomedical Signal Processing and Control, Volume 66, April 2021, 102463, Elsevier
- 12. A. Bablani, D. R. Edla, V. Kupilli and R. Dharavath, Lie Detection Using Fuzzy Ensemble Approach With Novel Defuzzification Method for Classification of EEG Signals, IEEE Transactions on Instrumentation and Measurement, vol. 70, pp. 1-13, May 2021, Art no. 2509413
- Balaji T.K., Chandra Sekhara Rao Annavarapu, Annushree Bablani, Machine learning algorithms for social media analysis: A survey, Computer Science Review, Volume 40, 2021, 100395, ISSN 1574-0137, May 2021
- 14. Damodar Reddy Edla, Shubham Dodia, Annushree Bablani, and Venkatanareshbabu Kuppili, An Efficient Deep Learning Paradigm for Deceit Identification Test on EEG Signals, ACM Transactions on Management Information Systems, Volume12, Issue 3, Article No.: 25 pp 1–20, July 2021
- 15. "Mekala Girish Kumar, Yash Agrawal, Vobulapuram Ramesh Kumar, Rajeevan Chandel, A prominent unified crosstalk model for linear and sub-threshold regions in mixed CNT bundle interconnects, Microelectronics Journal, Volume 118, 2021, 105294, ISSN 0026-2692,"
- 16. 1. N. Rangappa, Y. R. V. Prasad and S. R. Dubey, "LEDNet: Deep Learning-Based Ground Sensor Data Monitoring System," in IEEE Sensors Journal, vol. 22, no. 1, pp. 842-850, 1 Jan.1, 2022, doi: 10.1109/JSEN.2021.3129173.

#### 8.2 Conference Proceedings/Presentations

- 1. Tripathi, Nikhil, and Abhijith Kalayil Shaji. "Defer No Time, Delays have Dangerous Ends: Slow HTTP/2 DoS Attacks into the Wild." In 2022 14th International Conference on COMmunication Systems & NETworkS (COMSNETS), pp. 194-198. IEEE, 2022.
- 2. "P. Sirigireddy and P. B. Eladi, ""Numerical study of novel piezoelectric energy harvester for power generation from human walking"" at International Conference, IEMRE 2022,

organized by Institute of Engineering & Management, Kolkata on 25th - 27th February 2022"

- 3. "C.V. Sekhar, S. Balasubramanian, P. Viswanath, A. Gautam, ""Model Compression Based Lightweight Online Signature Verification Framework"", Workshop on Document Analysis and Recognition (DAR), ICVGIP, (Date of Acceptance: 1st Nov 2021) Dec 2021.
- 4. Pranita Saladi, Rishi Manudeep Guntupalli, Sudheer Kumar Puppala and Viswnath Pulabaigari, ""Prioritized Semi-supervised Deep Embedded Clustering"", in the 3rd Intl. Conf. on Innovative Trends in Information Technology (ICITIIT 22) 2022, (Accepted on 21 Dec 2021), 12-13 Feb 2022, Published by IEEE."
- Sahoo, M. M., Pattathal Vijayakumar, A., Herrmann, I., Mathew, S. K., and Porwal, A.: Estimation of point spread function for unmixing geological spectral mixtures, EGU General Assembly 2022, Vienna, Austria, 23–27 May 2022, EGU22-8712, https://doi.org/10.5194/egusphere-egu22-8712, 2022.
- 6. Kusuru, Durgesh, Anish C. Turlapaty, and Mainak Thakur. ""A Laplacian-Gaussian Mixture Model for Surface EMG Signals from Upper Limbs."" 2021 43rd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC). IEEE, 2021.
- 7. Kishore, SR Nandha, Mainak Thakur, and Subhojit Mandal. ""Forecasting of Wind Speed at Offshore Wind Site-A Case Study."" OCEANS 2022-Chennai. IEEE, 2022.
- 8. Kusuru, Durgesh, et al. ""A Gaussian Gamma mixture model for Indian ocean surface wind speed."" OCEANS 2022-Chennai. IEEE, 2022."
- "Murukutla, S. A., Koushik, S. B., Chinthala, S. P. R., Bobbillapati, A., & Kandaswamy, S. (2021, October). A Simple Agent Based Modeling Tool for Plastic and Debris Tracking in Oceans. In International Conference on Practical Applications of Agents and Multi-Agent Systems (pp. 139-150). Springer, Cham.
- Meegada, S., & Kandaswamy, S. (2021, September). Comparison of Viral Information Spreading Strategies in Social Media. Social Simulation Conference 2021. Cracow, Poland - 20-24 September 2021.
- 11. Sanodiya RK, Gottumukkala VV, Kurugundla LD, Dhansri PR, Karn RR, Yao L.;A Novel Multi-source Domain Learning Approach to Unsupervised Deep Domain Adaptation; 64-72
- 12. Sanodiya R.K., Sharma C., Satwik S., Challa A., Rao S., Yao L. .; A Novel Metric Learning Framework for Semi-supervised Domain Adaptation; Vol-13108;165-176
- 13. Lekshmi R., Sanodiya R.K., Linda R.J., Jose B.R., Mathew J. .;Kernelized Transfer Feature Learning on Manifolds; Vol-13109;Page 297-308"

- R. Dhanesha, D. K. Umesha, C. L. Shrinivasa Naika and G. N. Girish, "Segmentation of Arecanut Bunches: a Comparative Study of Different Color Models," 2021 IEEE Mysore Sub Section International Conference (MysuruCon), Oct 2021, pp. 752-758, doi: 10.1109/MysuruCon52639.2021.9641680.
- 15. S.Manipriya, C.Mala, Samson Mathew, "Improved Performance of ITS Application with Verified Traffic Congestion Statistics (TraCoS)", International Conference on Computational Performance Evaluation (COMPE 2021), IEEE Proceedings, pp. 141-146, Shilong, Meghalaya, India, December 2021
- 16. S.Manipriya, C.Mala, Samson Mathew, "Improved Vehicle Detection Accuracy and Processing Time for Video Based ITS Applications", 6th Conference on Transportation Research Group of India (CTRG 2021), Trichy, India, December 2021
- 17. Balaji, T. K., Annushree Bablani, and S. R. Sreeja. "Opinion mining on COVID-19 vaccines in India using deep and machine learning approaches." 2022 International Conference on Innovative Trends in Information Technology (ICITIIT). IEEE, 2022.
- L. Emmadi, R. VaraPrasad and H. Venkataraman, ""Analysis of SDN based IIoT networks Targeting Automation Processes in Smart Factory Environments,"" 2021 10th IEEE International Conference on Communication Systems and Network Technologies (CSNT), 2021, pp. 465-472, doi: 10.1109/CSNT51715.2021.9509726.
- 19. S. Kanchi and R. V. Prasad, ""Integral Framework for UAV: Navigational and Wireless Connectivity Aspects," 2021 IEEE Region 10 Symposium (TENSYMP), 2021, pp. 1-6, doi: 10.1109/TENSYMP52854.2021.9550847.
- 20. P. S. Harshitha, R. Vara Prasad and H. Venkataraman, ""CRIS- Central Server-based Real-Time Interconnections of Water Supply Network,"" 2021 IEEE Bombay Section Signature Conference (IBSSC), 2021, pp. 1-5, doi: 10.1109/IBSSC53889.2021.9673319."

#### 8.3 On-Going Sponsored Projects (2021-22)

- 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
- 2. 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
- 3. 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
- 4. 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-Sep-22
- 5. Dr. Priyanka Dwivedi , SERB SRG,"Development of Wearable, Non-invasive Devices for Human Health Wellness", Rs.30,68,520 26-Dec-20 to Dec. 2022.

- 6. Dr Balaji Raman, Dr. Piyush Joshi, DST-NMICPS-TIH IIT Hyderabad Design, development, and deployment of energy-efficient smart EDGE devices for real-time traffic flow prediction and control, Rs.40,00,002, 23rd July 2021-22nd July 2024
- Dr Balaji Raman, Dr Neha Agrawal DST-NMICPS-TIH IIT Kanpur- "Secure Drones: Analyze, Deploy, and Decide Cryptographic Modules in UAVs Rs.37,00,480 Nov-21 to Nov-24
- Dr Raja Vara Prasad Dr. Balaji Raman and Dr. Divyabrahmam Kandimalla DST-NMICPS-TIH IIT Hyderabad – "Advanced Aerial Mapping (AAM) Rider: Yield Detection System for Mango Farms using UAVs" Rs.49,96,100 3rd July 2021 to 2nd July 2024
- 9. Dr Himangshu Sarma SERB-SRG-"Development of Game platform through VR and AR for School Education" Rs.16,40,720 Dec-21 to Dec-23

#### 8.4 Patents Filing

- 1. H. Venkataraman, N. Jaswanth, Vishnu Vamsi and Manohar Sai, "System for Indicating Road Quality Index and method Thereof", Indian patent, filed on 4th June 2021
- 2. H. Venkataraman, Raja Vara Prasad, Agraj Khare and Pavan. Y, "Method for predicting Upcoming Delays in Manufacturing Process and System Thereof", Indian patent, filed in July 2021
- 3. D. Adithya, N. Jaswanth and H. Venkataraman, "Visual Anomaly Inspection and Mechanism for Digital Twin with Robotic Arm", Indian patent, filed on 17th August 2021

# 9. Innovation and Entrepreneurship Development

Focus on Innovation and Entrepreneurship: IIIT Sri City promotes a culture of innovation and entrepreneurship to help faculty and students to fulfill their potential and to serve the needs of the community. We foster entrepreneurship and innovation through several ways. IIIT Sri City has been selected by MoE Innovation Cell to act as an Institute Innovation Council. Furthermore, IIIT Sri City has established an Entrepreneurship Cell (E-cell) to support and enable students to create innovative ideas and convert them into business opportunities. E-cell trains students on how to be successful entrepreneurs with social responsibility.

Keeping up with the spirit of entrepreneurship, in 2020, we launched our TBI, Gyan Circle Ventures (The legal entity being Centre for Innovation and Entrepreneurship Development at IIITS (CIED), an independent Section 8 Non-profit organization). The Business Incubator is one of the strategic priorities of the institute to promote innovation and entrepreneurship in the region, in several areas including but not limited to, Infrastructure Development and Smart Manufacturing. We strongly believe that Gyan Circle Ventures will serve as a hub for innovation and startups leading to development of new technologies and business opportunities as well as enable economic and social development in the region.

The primary purpose of the incubator, associated with the esteemed IIIT Sri City, is to encourage building the institutions' entrepreneurial spirit via utilizing its intellectual capital. Currently, Dr. G. Kannabiran, Director, IIIT Sri City and Shri M Balasubramaniam, Chairman, BoG-IIIT Sri City serve as the Directors of the company (CIEDI).

Gyan Circle Ventures located in IIIT Sri City provides valuable facilities to incubatees and startups. The incubatees of GCV gets access to

- Modern work space
- Communication facilities
- Computing facilities
- Equipment labs
- Library & information Centre
- Training and conference facilities

In addition, the incubatees can leverage the expertise of Mentors from both academia and the industry. Being an incubatee in a TBI which is a part of an esteemed high quality technical institution has additional perks. Startups need manpower and they have an opportunity to hire brilliant young minds from IIIT Sri City, either as interns or as full time employees.

Gyan Circle Ventures' proposal to function as a Technology Incubation and Development of Entrepreneurs (TIDE 2.0) incubation centre was approved by the Ministry of Information Technology (MeiTy). They have chosen and are funding GCV as a Group 2 Centre.

TIDE 2.0 by MeiTy was initiated to promote tech entrepreneurship through financial and technical support to incubators engaged in using emerging technologies such as IoT, AI, Block-chain, Robotics etc. in pre-identified areas of societal relevance.

The TIDE 2.0 center at Gyan Circle Ventures will provide support for innovators and startups, in various phases, via the two following programs.

Entrepreneur-In-Residence (EiR) Program

- An Entrepreneurs-in-Residence (EiR) is an individual(s)/ student(s)/ start-up who are ready to develop and validate their idea into a Proof-of-Concept (POC).
- They will work from GCV incubator space
- GCV TBI will support the idea development, validation and subsequent development of POC.
- A maximum up to Rs. 4 Lakhs will be provided to each EiR as Grant.

Grants Program

- Nascent start-ups with a definite Proof-of-Concept can be considered eligible for the grant. The grant is provided to create a Minimum Viable Product and to advance the start-up till Go-to-market stage.
- A maximum of up to Rs. 7 Lakhs may be provided to each start-up as Grant.
- GCV TBI will provide mentorship and guidance throughout the program.

As a part of it's 1st Cohort under MeitY TIDE 2.0 programme, GCV selected & funded 9 startups (8 Grants & 1 EiR) during the FY2020-21. The details of the startups are as follows:

SNo.	Startup/Company	Lead Innovator/CEO	Innovation Brief	Technologi es	Application Domain
1	Rekindle Automations Pvt Ltd, Chennai	Radhakrishnan Jothiram	A Smart Intravenous Dripper System For Centralized Monitoring And Automatic Stopping Of Intravenous Fluid	AI	HealthCare
2	Hivericks Technologies, Chennai	Hemalatha R	Next Generation Of Smart Green Charging Solutions For Li-Ion Battery Devices	ΙοΤ	Smart Charging

3	Aqua Solutions, Krishna	Jogi Sai Prasanna	Aquaculture Smart Monitoring Systems for feeding & surveillance of aqua farms	IoT	Aquaculture
4	LSPoT PrevenTech, Erode	Sunil Vignesh	Intelligent Wearable Device to Retain and Maintain Human Posture	ML	Preventive HealthCare
5	MedCuore Medical Solutions, Chennai	Paul Pradeep J	Indoor Air Quality Monitoring and Purifying System using Hybrid Green Technology	ΙοΤ	Environment
6	Nandha Infotech, Coimbatore	Vigneshwaran T	SenSe Luto – Advanced Soil Monitoring & Crop Management System	IoT	Agriculture
7	Mellon Ai Pvt Ltd	Dr Masood Ikram	Capemo; Artificial Intelligent Camera	AI	Retail
8	Equizone Meditech Private Limited	Rajanandhini. B	Negative Pressure Wound Therapy with Remote Monitoring	IoT	HealthCare
9	Hydrotribe Pvt Ltd	Tarun K Karanam	Automated and self Sustainable Aeroponic tower to cultivate organic vegetables at home	IoT	Hydroponics

Three of the above startups (Rekindle, Hivericks & Medcuore) have already graduated from the program. Medcuore Medical Solutions have also been selected for Investment scale-up of Rs.35 Lakhs under the TIDE 2.0 scheme by MeitY.

As a part of its 2nd Cohort, GCV selected & funded 9 startups (7 Grants & 2 EiR) during the FY 2021-22. The details of the startups are as follows:

Sno.	Name	Organization	Technologies	Sector
1	Megavaruman P	Magronic Contrivance Pvt Ltd	IoT/Robotics	Agriculture

2	Siva Nagaraju	FARMX INNOVATIONS PRIVATE LIMITED	IoT	Agriculture
3	Varshan Mohan	Pristyn Automations Private Limited	ML & IoT	Energy Sector
4	Vishnu Priya	Kratu Scientific Solutions LLP	MEMS	Healthcare
5	Akanshi Vaishya	WORKIFY	AI/ML, Robotics	Environment
6	Padmanabham K	Pavan Empower Solutions	IoT	Wearable Device
7	Abhishek Kaushal	Radiate healthcare innovations private limited	AI & IoT	Healthcare
8	Manju Bhargavi		AI & IoT	Healthcare
9	Raaja Suresh	Eklavya Innovative Solutions	IoT	Advertisement

# 10. Other activities:

Academic progress during COVID-19 Pandemic: As per the advisories of the Government of India and Government of Andhra Pradesh, the campus has been closed for the BTech students. The Monsoon 2021 classes were resumed through online mode from August 2021 as per the regular schedule. Faculty members are requested to provide the teaching slides relating to their classes one week in advance and the same are shared with the students through a common drive. Further, all the classes are video recoded and the recordings are made available for off-line watching by students. In order to ensure student participation in the classes on-line surprise quizzes are conducted every week which form part of continuous assessment. Periodic meetings were conducted with the Class Committee members and steps were taken to ensure the effectiveness of teaching-learning process is not affected. The institute places on record the support of the faculty members and staff for effectively delivering the lectures and assessment of the courses. The PhD and MTech students are in the campus since August 2021.

**Convocation 2021:** The Convocation of the institute was conducted on the 30th of June 2021. Shri Sanjay Dhotre, the then Honourable Union Minister of State for Education, Communications and Electronics & Information Technology Government of India delivered the Convocation address. During this convocation, a total of 261 students (2019 and 2020 batches) comprising 164 Computer Science and

Engineering students and 97 Electronics and Communication Engineering students received degrees. It also included 28 Honours students from both disciplines.



Shri Sanjay Dhotre congratulated IIIT Sri City for its achievements in academic and research domains. As part of the convocation address, he highlighted the emergence of new technologies of Industry 4.0Artificial Intelligence. covering Machine learning, VR, Block chain, 3D printing, data analytics, drones and others. He urged the students not just work in the development and improvement of these technologies, but also see how they can be used to solve common

man's problems such as improving farming efficiency ensuring energy security, ensuring piped water to every household efficiently, help in monitoring forest cover and wildlife conservation, and solve MSMEs.

**Launch of OBE Curriculum:** In a major academic transformation, the institute has decided to implement *Outcome-based Education (OBE)* through a systematic approach. It has been proposed to achieve effectiveness of the teaching-learning process by ensuring student-centeredness in all the activities. Therefore, the curriculum and its delivery shall eventually be helping the students to be able to get right jobs or take up higher studies. Along with OBE implementation, the new curriculum includes the following unique features.

<u>Full-Stack Development Track:</u> The job opportunity for Full-Stack Developers is growing at the rate of 24% in the next few years. To meet the demand, a track of three courses from 4th to 6<sup>th</sup> Semesters with extended projects is offered. Students will be able to learn and demonstrate the understanding of state-of-the-art FSD tools, libraries and services. They will also be able to leverage and build, deploy, and support, end-to-end applications using FSD tools through a demonstratable project.

<u>BTech Specializations</u>: In order to offer specialized human resources to the industry, the following BTech specializations are introduced.

- □ Artificial Intelligence and Machine Learning
- Cyber Security
- Data Science
- Cyber Physical Systems
- NextGen Wireless Communication

Students have to earn 14 additional credits through 4 courses and an Industry-based project to get BTech degree with specializations.

It is proposed to launch a 4 credit "Socially-focused Innovation" projects to be undertaken by the students as part of the credits allotted under SSHAM (Skills, Science, Humanities, Aptitude and Management). They will be focusing on finding an innovative technology-based solution for problems identified in the UBA villages and in the neighbourhood.

The institute has decided to implement *Outcome-based Education (OBE)* from academic year 2021-22 through a systematic approach. It is proposed to achieve effectiveness of the teaching-learning process by ensuring student-centeredness in all our activities. Therefore, the curriculum and its delivery shall eventually be helping the students to be able to get right jobs or take up higher studies. Prof. Anil Sahasrabudhe, Chairman, All India Council for Technical Education launched the OBE-based BTech and MTech Programmes of IIIT Sri City. As part of his address, he highlighted the need to address the requirements of students, parents, government, industry, etc. Shri. M. Balasubramaniam, Chairman, Board of Governors



graced the occasion and emphasized the need for effective implementation of the OBE curriculum in order to realize its full potential.

**Back to Campus Programme for BTech Students:** The campus has been closed since March 2020 to all UG students due to Covid-19 pandemic and academic activities are being carried out in online mode. The teaching-learning processes and co-curricular activities have been affected because of remote working. It has been observed that there has been improvement in the COVID-19 situation due to a major vaccination programme carried out by the Government. Further, a sizable number of students have shown interest in returning to campus. Therefore, the institute launched the Back to Campus 2021 (BTC2021) with the support of all the students, parents, faculty, staff and other stakeholders. However, a very small number of students were keen to come to campus. The institute encouraged those students to come to campus and started with classes in a hybrid mode. It is



proposed to start the offline classes for UG II students from January 05, 2002 by following all the COVID protocols. Based on the emerging situation, it is proposed to bring other students from the third week of January 2022.

Webinar on Value-based Education and Personality Development: As part of NEP 2020 implementation, the institute led the efforts to organize this webinar for the benefit of Directors, faculty and students of all 20 IIITs under the aegis of IIIT Coordination Forum. Gurudev Sri Sri Ravishankar, Founder of the Art of Living and Shri. A. Balakrishnan, President, Vivekananda Kendra Kanyakumari delivered thematic addresses and interacted with the participants. The discussions focused on the issues and challenges faced by today's youth, especially college students on Values and developing good personality. The discussions further focused on strategies for inculcating the requirements through formal curriculum and co-curricular and extra-curricular activities, key role played by the faculty, continuous and systematic plan of activities from First year to fourth year. It also focused on engaging other stakeholders such as local community, social organizations, industries,



alumni of the institute to the larger plan of activities to help the youth to follow values in personal and professional life.

**Back to Campus Programme for BTech Students:** The campus has been closed since March 2020 to all UG students due to Covid-19 pandemic and academic activities were carried out in online mode. The teaching-learning processes and co-curricular activities have been affected because of remote working. It has been observed that there has been improvement in the COVID-19 situation due to a major vaccination programme carried out by the Government. The BTech students are brought back to campus as per the following schedule:

- Second year BTech from 05 January 2022
- Fourth year BTech from 26 February 2022
- Third year BTech from 5 March 2022

It was a momentous occasion to have the students on campus and taking part in all academic and other activities. I wish to share that ours is the first institute among IIITs to bring back BTech students to the campus. I wish to place on record the support provided to me by the Assistant Deans, Associate Deans, Academic Coordinators and other related faculty and staff for successfully completing the Back to Campus programme.

In addition to adhering to COVID-19 protocols suggested by Government, students were advised to follow all the COVID appropriate behaviours in the academic block and hostels.

**Workshop on Advances in Deep Learning and Applications (22-26 February 2021):** IIIT Sri City in collaboration with the Science and Engineering Research Board, Government of India has organized a 5 day workshop on Advances in Deep Learning and Applications from 22 to 25th February. This workshop covered from the basics to advancements in deep learning and its applications in various domains. The audience were primarily research students, faculties and educators, and technologists from around the globe who gave a very good feedback of having gained insight and information that would remain effective in their respective fields. Each topic in the workshop was chosen keeping in mind how industries are leveraging the state-of-the-art

deep learning methods for their success. The workshop has brought together 37 eminent speakers from diverse fields. The speakers included 15 IIT faculties, 13 Industry experts, 2 Govt. of India officials, and 7 international speakers of repute. The workshop has received an outstanding response with around 120 participants including researchers, faculties from prominent institutes around the world (UK, Israel, South Korea, Mexico, Denmark, Morocco, Sudan), IITs, NITs, IIITs, IISERs, Central & State Universities.

Dr. Manish Gupta, Director Google Research India, who inaugurated the workshop, highlighted the importance of the deep learning technologies in diverse fields, especially the role in democratizing information access, health care, and transliteration. The Guest of Honour, Mr. Balasubramaniam, Chairman Board of Governors of IIIT Sri City highlighted that countries around the world are investing hugely on AI related technologies including deep learning due to importance in business, organizations and institutions.

Research on SMEs readiness for Industry 4.0 Adoption: The institute undertook a Consultancy to APO Centre of Excellence in Industry 4.0 of National Productivity Council, Ministry of Industry and Commerce, Government of India. The study covered the readiness of SMEs in five key sectors- Agriculture Implements, Automotive, Food processing, Pharmaceutical and Textile & Garments. Based on detailed analysis, Sector specific and cross analysis and reports were prepared. Detailed sector recommendations covering the key stakeholders shall be useful policies and programmes to support SMEs in the key sectors.



# 11. Summary of Financials

# **INCOME & EXPENDITURE STATEMENTS(YOY)**

				ŀ	Rs.in Lakhs
INCOME	2017-18	2018-19	2019-20	2020-21	2021-22
Academic Receipts	1213.42	1701.93	2233.14	2440.46	2999.37
Grants / Subsidies	300.00	-	-	183.00	75.00
Income From Investments	78.77	104.39	204.73	279.05	350.32
Interest Earned(Other than FD)	36.18	0.40	2.75	0.82	1.77
Other Income	151.59	226.98	351.67	133.81	206.05
TOTAL(A)	1779.96	2033.70	2792.29	3037.14	3632.51
EXPENDITURE					
Staff Payments & Benefits (Establishment Expenses)	422.32	521.40	489.32	569.26	837.15
Academic Expenses	445.06	393.09	417.74	177.20	139.62
Administrative and General Expenses	540.53	395.14	355.75	229.87	269.62
Transportation Expenses	123.90	52.99	47.10	2.07	3.49
Repairs & Maintenance	75.04	60.48	87.76	81.69	86.10
Depreciation	100.93	270.97	270.74	268.57	247.77
Prior Period Expenses	39.63	3.68	48.34	16.02	11.93
TOTAL(B)	1747.41	1697.75	1716.75	1344.68	1595.68
Excess of Income over Expenditure(A- B)	32.55	335.95	1075.54	1692.46	2036.83